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**INSTALLATION RESTORATION PROGRAM
PHASE II-CONFIRMATION/QUANTIFICATION
STAGE 1**

**FOR
AIR FORCE PLANT PJKS WATERTON,
COLORADO**

VOLUME II

**PREPARED BY:
ENGINEERING-SCIENCE**

**DESIGN • RESEARCH • PLANNING
1100 STOUT STREET, SUITE 1100
DENVER, COLORADO 80204**

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OCTOBER 1986

**FINAL REPORT FOR PERIOD OCTOBER 1985
TO OCTOBER 1986**

Approved for Public Release, Distribution is Unlimited

**PREPARED FOR:
HEADQUARTERS AERONAUTICAL SYSTEMS DIVISION
FACILITIES MANAGEMENT DIVISION (ASD/PMDA)
OHIO 45433-6503**

AND

**HEADQUARTERS AIR FORCE SYSTEMS COMMAND
COMMAND BIOENVIRONMENTAL ENGINEER (AFSC/SGPB)
ANDREWS AIR FORCE BASE, D.C. 20334-5000**

**UNITED STATES AIR FORCE
OCCUPATIONAL & ENVIRONMENTAL HEALTH
LABORATORY (USAFOEHL)
TECHNICAL SERVICES DIVISION (TS)
BROOKS AIR FORCE BASE, TEXAS 78235-5501**

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INSTALLATION RESTORATION PROGRAM PHASE II - CONFIRMATION/QUANTIFICATION STAGE 1

FOR

AIR FORCE PLANT PJKS,
WATERTON, COLORADO

VOLUME II

PREPARED BY:

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DENVER, COLORADO

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FACILITIES MANAGEMENT DIVISION (ASD/PMDA)
WRIGHT-PATTERSON AIR FORCE BASE,
OHIO 45433-6503

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COMMAND BIOENVIRONMENTAL ENGINEER (AFSC/SGPB)
ANDREWS AIR FORCE BASE, D.C. 20334-5000

UNITED STATES AIR FORCE
OCCUPATIONAL & ENVIRONMENTAL HEALTH LABORATORY (USAF O EHL)
TECHNICAL SERVICES DIVISION (TS)
BROOKS AIR FORCE BASE, TEXAS 78235-5501

INSTALLATION RESTORATION PROGRAM
PHASE II - CONFIRMATION/QUANTIFICATION
STAGE 1

Final Report
For

Air Force Plant PJKS,
Waterton, Colorado

Headquarters Aeronautical Systems Division
Facilities Management Division (ASD/PMDA)
Wright-Patterson AFB,
Ohio 45433-6503

And

Headquarters Air Force Systems Command
Command Bioenvironmental Engineer (AFSC/SGPB)
Andrews Air Force Base, D.C. 20334-5000

United States Air Force
Occupational & Environmental Health Laboratory (USAFOEHL)
Technical Services Division (TS)
Brooks Air Force Base, Texas 78235-5501

October 1986

PREPARED BY
Engineering-Science, Inc.
Denver, Colorado

USAF CONTRACT NO. F33615-84-D-4403, DELIVERY ORDER NO. 0012

USAFOEHL TECHNICAL PROGRAM MANAGER
John K. Yu, Ph.D.
Technical Program Manager/Consulting Hydrologist

USAF OCCUPATIONAL & ENVIRONMENTAL HEALTH LABORATORY (USAFOEHL)
TECHNICAL SERVICES DIVISION (TS)
BROOKS AIR FORCE BASE, TEXAS 78235-5501

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17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number) IRP Contamination Hazardous Waste Phase II	
FIELD	GROUP	SUB-GROUP		
19. ABSTRACT (Continue on reverse if necessary and identify by block number) A field investigation was conducted to confirm or deny the presence of hazardous wastes at eight sites at Air Force Plant PJKS near Waterton, Colorado. Activities at the plant that could have generated hazardous wastes include the development and testing of rocket engines. The field program included sampling of surface waters, soils, and sediments, and the installation and sampling of eight ground water monitoring wells. Hazardous substances found at the eight sites included TCE and other halocarbons, NDMA (a decomposition product of hydrazine), phenols, and trace amounts of heavy metals, including arsenic, hexavalent chromium, and selenium. Elevated levels of radiation were detected in ground waters downgradient from a landfill known to contain a small amount (25 kilograms) of low-level radioactive magnesium-thorium alloy. Since natural uranium mineralization occurs within the area, the background level of radiation needs to be established before the significance of the measured radiation can be determined. Contamination of soils and sediments was determined to be of low significance because of the low levels of contamination and a lack of pathways for offsite migration. Contamination of surface and ground waters at sites 1, 2, 4, 5, and 11 was judged to be moderately significant because the contaminants occurred at concentrations exceeding standards or guidelines to protect human health, and the potential for contaminant migration exists. Plans for future studies to determine the sources and extent of surface and ground water contamination were developed.				
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			22c. OFFICE SYMBOL ASD/PMDA	

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All other editions are obsolete.

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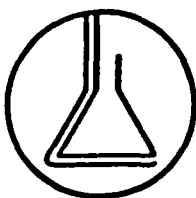
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APPENDIX L
LABORATORY ANALYSES FOR SAMPLING PROGRAM

Results of Hydrazine and NDMA for all
Samples Analyzed



California Analytical Laboratories, Inc.
2544 Industrial Boulevard • West Sacramento, CA 95691 • (916) 372-1393

January 29, 1986
Lab No's: 23165/23308/
23343/23344/23357/
23410/23470/23517/
23532/23541
PJKS-AF-Denver Project

John Adamson
Engineering Science
57 Executive Park Four, Suite 590
Atlanta, GA 30329

Twenty-two water samples were received in one quart amber bottles and seventy soil/sediment samples were received in one quart mason jars to be analyzed for hydrazine and NDMA (nitrosodimethylamine).

<u>CAL I.D.</u>	<u>SAMPLE I.D.</u>		<u>MATRIX</u>	<u>DATE RECEIVED</u>
23165-1	8-1-SW-1	12/3/85	WATER	12/4/85
-2	8-2-SW-1	12/3/85	WATER	12/4/85
-3	8-1-SD-1	12/3/85	SOIL	12/4/85
-4	8-2-SD-1	12/3/85	SOIL	12/4/85
23308-1	1-ES-3-SS-1	12/13/85	SOIL	12/17/85
-2	1-ES-3-SS-2	12/13/85	SOIL	12/17/85
-3	1-ES-3-SS-3	12/13/85	SOIL	12/17/85
-4	1-ES-3-SS-4	12/13/85	SOIL	12/17/85
-5	1-ES-3-SS-5	12/13/85	SOIL	12/17/85
-6	1-ES-3-SS-6	12/13/85	SOIL	12/17/85
-7	1-ES-3-SS-7	12/13/85	SOIL	12/17/85
-8	1-ES-4-SS-1	12/13/85	SOIL	12/17/85
-9	1-ES-4-SS-2	12/13/85	SOIL	12/17/85
-10	1-ES-4-SS-3	12/13/85	SOIL	12/17/85
-11	1-ES-4-SS-4	12/13/85	SOIL	12/17/85
-12	1-ES-4-SS-5	12/13/85	SOIL	12/17/85
-13	1-ES-4-SS-6	12/13/85	SOIL	12/17/85
-14	1-ES-5-SS-1	12/16/85	SOIL	12/17/85
-15	1-ES-5-SS-2	12/16/85	SOIL	12/17/85
-16	1-ES-5-SS-3	12/16/85	SOIL	12/17/85
-17	1-ES-5-SS-4	12/16/85	SOIL	12/17/85
-18	1-ES-5-SS-5	12/16/85	SOIL	12/17/85
-19	1-ES-5-SS-6	12/16/85	SOIL	12/17/85
23343-1	8-3-SW-1	12/18/85	WATER	12/19/85
-2	8-3-SD-1	12/18/85	SOIL	12/19/85
-3	8-4-SW-1	12/18/85	WATER	12/19/85
-4	8-4-SD-1	12/18/85	SOIL	12/19/85
-5	8-5-SW-1	12/18/85	WATER	12/19/85
-6	8-5-SD-1	12/18/85	SOIL	12/19/85
-7	8-6-SW-1	12/18/85	WATER	12/19/85
-8	8-6-SD-1	12/18/85	SOIL	12/19/85
-9	8-5-SW-2	12/18/85	WATER	12/19/85

<u>CAL I.D.</u>	<u>SAMPLE I.D.</u>		<u>MATRIX</u>	<u>DATE RECEIVED</u>
23343-10	8-5-SD-2	12/18/85	SOIL	12/19/85
-11	8-7-SW-1	12/18/85	WATER	12/19/85
-12	8-8-SW-1	12/18/85	WATER	12/19/85
-13	8-7-SD-1	12/18/85	SOIL	12/19/85
-14	8-8-SD-1	12/18/85	SOIL	12/19/85
-15	8-9-SD-1	12/18/85	SOIL	12/19/85
-16	8-10-SD-1	12/18/85	SOIL	12/19/85
-17	8-1-SD-2	12/18/85	SOIL	12/19/85
-18	8-2-SD-2	12/18/85	SOIL	12/19/85
-19	8-1-SW-2	12/18/85	WATER	12/19/85
-20	8-2-SW-2	12/18/85	WATER	12/19/85
-21	8-9-SW-1	12/18/85	WATER	12/19/85
-22	8-10-SW-1	12/18/85	WATER	12/19/85
23344-1	ES-7(1')-SS-1	12/17/85	SOIL	12/19/85
-2	ES-7(3')-SS-2	12/17/85	SOIL	12/19/85
-3	ES-7(6')-SS-3	12/17/85	SOIL	12/19/85
-4	ES-7(10')-SS-4	12/17/85	SOIL	12/19/85
-5	ES-7(15')-SS-5	12/17/85	SOIL	12/19/85
-6	ES-7(20')-SS-6	12/17/85	SOIL	12/19/85
-7	ES-6(1')-SS-1	12/17/85	SOIL	12/19/85
-8	ES-6(3')-SS-2	12/17/85	SOIL	12/19/85
-9	ES-6(6')-SS-3	12/17/85	SOIL	12/19/85
-10	ES-6(10')-SS-4	12/17/85	SOIL	12/19/85
-11	ES-6(15')-SS-5	12/17/85	SOIL	12/19/85
-12	ES-6(20')-SS-6	12/17/85	SOIL	12/19/85
23357-1	7-1-SD-1	12/19/85	SOIL	12/20/85
-2	7-2-SD-1	12/19/85	SOIL	12/20/85
-3	7-3-SD-1	12/19/85	SOIL	12/20/85
-4	ES-9-SS-1	12/19/85	SOIL	12/20/85
-5	ES-9-SS-2	12/19/85	SOIL	12/20/85
-6	ES-9-SS-3	12/19/85	SOIL	12/20/85
-7	ES-9-SS-4	12/19/85	SOIL	12/20/85
-8	ES-9-SS-5	12/19/85	SOIL	12/20/85
-9	7-4-SD-1	12/19/85	SOIL	12/20/85
-10	7-5-SD-1	12/19/85	SOIL	12/20/85
-11	7-6-SD-1	12/19/85	SOIL	12/20/85
-12	7-7-SD-1	12/19/85	SOIL	12/20/85
-13	7-8-SD-1	12/19/85	SOIL	12/20/85
-14	7-9-SD-1	12/19/85	SOIL	12/20/85

Page 3.

<u>CAL I.D.</u>	<u>SAMPLE I.D.</u>		<u>MATRIX</u>	<u>DATE RECEIVED</u>
23410-1	ES-11-SS-1	12-30-85	SOIL	01/02/86
-2	ES-11-SS-2	12-30-85	SOIL	01/02/86
-3	ES-11-SS-3	12-30-85	SOIL	01/02/86
-4	ES-11-SS-4	12-30-85	SOIL	01/02/86
-5	ES-11-SS-5	12-30-85	SOIL	01/02/86
-6	ES-13-SS-1	12-31-85	SOIL	01/02/86
-7	ES-13-SS-2	12-31-85	SOIL	01/02/86
-8	ES-13-SS-3	12-31-85	SOIL	01/02/86
-9	ES-14-SS-1	12-31-85	SOIL	01/02/86
-10	ES-14-SS-2	12-31-85	SOIL	01/02/86
-11	ES-14-SS-3	12-31-85	SOIL	01/02/86
-12	ES-14-SS-4	12-31-85	SOIL	01/02/86
-13	ES-14-SS-5	12-31-85	SOIL	01/02/86
23470-1	1-SW-1, SITE 1	01-09-86	WATER	01/10/86
-2	1-SD-1, SITE 1	01-09-86	SOIL	01/10/86
23517-1	MW-1, GW-1	01-14-86	WATER	01/15/86
-2	MW-2, GW-1	01-14-86	WATER	01/15/86
23532-1	MW-8-10MW-8, GW-1	01-15-86	WATER	01/16/86
-2	MW-3-2-2MW-3, GW-1	01-15-86	WATER	01/16/86
-3	MW-6-4-2MW-6, GW-1	01-15-86	WATER	01/16/86
23541-1	MW-4, 4-MW-4, GW-1	01-16-86	WATER	01/17/86
-2	MW-5, 4-MW-5, GW-1	01-16-86	WATER	01/17/86
-3	MW-7, 2-MW-7, GW-1	01-16-86	WATER	01/17/86

Analysis of sample set 23165 was cancelled by Tim Shangraw on 12/23/86.

METHODS

A. NDMA (nitrosodimethylamine).

1. Water Samples. Sample aliquots were extracted, concentrated, and analyzed using EPA method 607.
2. Soil/sediment Samples. Sub-samples (10g) were extracted with 20 mL of a dichloromethane-methanol mixture (5:1,v:v) by shaking for one hour. A 10 mL aliquot (5g of soil) was removed, concentrated under nitrogen to about 2 mL, and adjusted to 5.0 mL in methanol. The final extracts were analyzed by GC-NPD as described in EPA Method 607.

B. Hydrazine

1. Water Samples. Sample aliquots (10 mL) were combined with 10 mL of 2.5% p-dimethylaminobenzaldehyde in a 25 mL volumetric flask. After 30 minutes the mixture was brought to 25 mL with glacial acetic acid. A 1:25 dilution in glacial acetic acid was then prepared and the absorbance at 480 nm read against a standard curve prepared using reference standards of hydrazine, treated in the same fashion. The method is based on NIOSH Method S237-1 (copy attached).
2. Soil/Sediment Samples. Sub-samples (10g) were extracted with 20 mL of 0.1 N hydrochloric acid by shaking for one hour. A 10 mL aliquot (5g of soil) was removed to a 25 mL volumetric flask and made slightly alkaline (pH 8-9) using 1 M aqueous sodium hydroxide. This solution was then treated with p-dimethylaminobenzaldehyde and processed as described above. The absorbance readings were again compared to a standard curve and the results calculated back to the original 10g soil sub-sample.

RESULTS

<u>CAL I.D.</u>	<u>NDMA (ppb)</u>	<u>Hydrazine (ppm)</u>
23308-1	<250 ug/Kg	<6 mg/Kg
-2	<250 ug/Kg	<6 mg/Kg
-3	<250 ug/Kg	<6 mg/Kg
-4	<250 ug/Kg	<6 mg/Kg
-5	<250 ug/Kg	<6 mg/Kg
-6	<250 ug/Kg	<6 mg/Kg
-7	<250 ug/Kg	<6 mg/Kg
-8	<250 ug/Kg	<6 mg/Kg
-9	<250 ug/Kg	<6 mg/Kg
-10	<250 ug/Kg	<6 mg/Kg
-11	<250 ug/Kg	<6 mg/Kg
-12	<250 ug/Kg	<6 mg/Kg
-13	<250 ug/Kg	<6 mg/Kg
-14	<250 ug/Kg	<6 mg/Kg
-15	<250 ug/Kg	<6 mg/Kg
-16	<250 ug/Kg	<6 mg/Kg
-17	<250 ug/Kg	<6 mg/Kg
-18	<250 ug/Kg	<6 mg/Kg
-19	<250 ug/Kg	<6 mg/Kg

CAL I.D.	NDMA (ppb)	Hydrazine (ppm)
23343-1	<0.25 ug/L	<1 mg/L
-2	<250 ug/Kg	<6 mg/Kg
-3	<0.25 ug/L	<1 mg/L
-4	<250 ug/Kg	<6 mg/Kg
-5	<0.25 ug/L	<1 mg/L
-6	<250 ug/Kg	<6 mg/Kg
-7	<0.25 ug/L	<1 mg/L
-8	<250 ug/Kg	<6 mg/Kg
-9	<0.25 ug/L	<1 mg/L
-10	<250 ug/Kg	<6 mg/Kg
-11	<0.25 ug/L	<1 mg/L
-12	0.34 ug/L X	<1 mg/L
-13	<250 ug/Kg	<6 mg/Kg
-14	<250 ug/Kg	<6 mg/Kg
-15	<250 ug/Kg	<6 mg/Kg
-16	<250 ug/Kg	<6 mg/Kg
-17	<250 ug/Kg	<6 mg/Kg
-18	<250 ug/Kg	<6 mg/Kg
-19	<250 ug/Kg	(note a)
-20	<0.25 ug/L	<1 mg/L
-21	0.42 ug/L X	<1 mg/L
-22	0.35 ug/L X	<1 mg/L
23344-1	<250 ug/Kg	<6 mg/Kg
-2	<250 ug/Kg	<6 mg/Kg
-3	<250 ug/Kg	<6 mg/Kg
-4	<250 ug/Kg	<6 mg/Kg
-5	<250 ug/Kg	<6 mg/Kg
-6	<250 ug/Kg	<6 mg/Kg
-7	<250 ug/Kg	<6 mg/Kg
-8	<250 ug/Kg	<6 mg/Kg
-9	<250 ug/Kg	<6 mg/Kg
-10	<250 ug/Kg	<6 mg/Kg
-11	<250 ug/Kg	<6 mg/Kg
-12	<250 ug/Kg	<6 mg/Kg
23357-1	<250 ug/Kg	<6 mg/Kg
-2	<250 ug/Kg	<6 mg/Kg
-3	<250 ug/Kg	<6 mg/Kg
-4	<250 ug/Kg	<6 mg/Kg
-5	<250 ug/Kg	<6 mg/Kg
-6	<250 ug/Kg	<6 mg/Kg
-7	<250 ug/Kg	<6 mg/Kg
-8	<250 ug/Kg	<6 mg/Kg
-9	<250 ug/Kg	<6 mg/Kg
-10	<250 ug/Kg	<6 mg/Kg
-11	<250 ug/Kg	<6 mg/Kg
-12	<250 ug/Kg	<6 mg/Kg
-13	<250 ug/Kg	<6 mg/Kg
-14	<250 ug/Kg	<6 mg/Kg

Page 6.

CAL I.D.	NDMA (ppb)	Hydrazine (ppm)
23410-1	<250 ug/Kg	<6 mg/Kg
-2	<250 ug/Kg	<6 mg/Kg
-3	<250 ug/Kg	<6 mg/Kg
-4	<250 ug/Kg	<6 mg/Kg
-5	<250 ug/Kg	<6 mg/Kg
-6	<250 ug/Kg	<6 mg/Kg
-7	<250 ug/Kg	<6 mg/Kg
-8	<250 ug/Kg	<6 mg/Kg
-9	<250 ug/Kg	<6 mg/Kg
-10	<250 ug/Kg	<6 mg/Kg
-11	<250 ug/Kg	<6 mg/Kg
-12	<250 ug/Kg	<6 mg/Kg
-13	<250 ug/Kg	<6 mg/Kg
23470-1 SW	<5 ug/L (note b)	<1 mg/L
-2 SD	<250 ug/Kg	<6 mg/Kg
23517-1	0.61 ug/L	<1 mg/L
-2	0.23 ug/L	<1 mg/L
23532-1	5.2 ug/L	<1 mg/L
-2	0.28 ug/L	<1 mg/L
-3	<0.25 ug/L	<1 mg/L
23541-1	<0.25 ug/L	<1 mg/L
-2	<0.25 ug/L	<1 mg/L
-3	<0.25 ug/L	<1 mg/L

Notes: a Sample was broken at CAL Lab.

b Extract final volume mistakenly taken to 5.0 mL,
precluding the usual 0.25 ug/L detection limit.

Charles J. Soderquist, PhD
Vice President

Don Fredrickson
Staff Chemist

Ben N. Buechler
GC Lab Manager

ds

TABLE I
QUALITY ASSURANCE RESULTS
HYDRAZINE

<u>A. Soil Samples.</u>	<u>sample result (mg/Kg)</u>	<u>duplicate result (mg/Kg)</u>	<u>spike added (mg/Kg)</u>	<u>spike found (mg/Kg)</u>	<u>percent recovery</u>
<u>CAL I.D.</u>					
23308-8	<6	<6	50	0.85	1.7
-17	<6	<6	500	176	35
23343-16	<6	<6	50	6.2	12
23344-7	<6	<6	500	193	39
23357-4a	<6	<6	50	3.0	6.0
-4b	<6	<6	50	8.2	16
-4c	<6	<6	500	364	73
23357-11	<6	<6	500	118	24

Average recovery at 50 ppm spike level = 8.9%

Average recovery at 500 ppm spike level = 43%

B. Water Samples. Spikes of water are redundant since the colorimetric method standard curve is actually a series of water spikes.

TABLE II
QUALITY ASSURANCE RESULTS
NDMA

A. Water Samples.

	sample result (ug/L)	spike added (ug/L)	spike found (ug/L)	duplicate spike found (ug/L)	average percent recovery
<u>CAL I.D.</u>					
23343 (tap water)	--	10	4.7	9.8	73%
23470-1	<5	10	13	--	130%
23517 (tap water)	--	10	3.3	2.6	30%

B. Soil Samples.

	sample result (ug/Kg)	spike added (ug/Kg)	spike found (ug/Kg)	duplicate spike found (ug/Kg)	average percent recovery
<u>CAL I.D.</u>					
23308-1	<250	10,000	5600	4600	51%
23344-1	<250	10,000	3500	3400	35%
23357-4	<250	10,000	2600	2400	25%
23343-2	<250	10,000	5100	6500	58%
23410-1	<250	10,000	4200	4500	44%

Results for Site 1
8010, 8020, Metals and Inorganic Parameters

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 12-85-1116
 Field Sample No. 1-ES-3, SS-1
 Date Collected 12-16-85
 Date Received 12/17/85
 Date Analyzed 12/23/85

Johnny R. Adamson
 Sample Matrix: _____

QC Report No. 565-01

 / Water (ug/L)

Dilution Factor _____

/X / Soil (ug/g)

*Moisture _____ %

 / Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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ANALYTICAL RESULTS SUMMARY
 Halogenated Volatile Organics
 SW Method 8010
 (second of two pages)

12-85-1116

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1117Client U.S. Air ForceField Sample No. 1-ES-3, SS-2Project PJKS (Denver)Date Collected 12-16-85

Client No. _____

Date Received 12/17/85

Laboratory Supervisor Approval: _____

Date Analyzed 12/23/85Johnny R. Coleman
Sample Matrix: _____QC Report No. PJKS-01☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	3	<10		37.28	
Dichlorodifluoromethane	30	<10		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1115
Field Sample No. 1ES-3, SS-3
Date Collected 12-16-85
Date Received 12/17/85
Date Analyzed 12/24/85QC Report No. PJKS-01

Sample Matrix:

☐ Water (ug/L)☒ Soil (ug/g)☐ Other _____

Dilution Factor _____

*Moisture _____ %

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1119Client U.S. Air ForceField Sample No. 1-E5-3, SS-4Project PJKS (Denver)Date Collected 12-16-85

Client No. _____

Date Received 12/17/85

Laboratory Supervisor Approval:

Date Analyzed 12/24/85Johnny R. CidamonQC Report No. PJKS-01

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1125Client U.S. Air ForceField Sample No. 1-85-37 55-5Project PJKS (Denver)Date Collected 12-16-85

Client No. _____

Date Received 12/17/85

Laboratory Supervisor Approval: _____

Date Analyzed 12/24/85Johnny R. ColemanQC Report No. PJKS-51

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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L-17

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 12-35-1/21
 Field Sample No. 1-ES-3, 55-6
 Date Collected 12-16-85
 Date Received 12/17/85
 Date Analyzed 12/26/85

Johnny R. Cidman

QC Report No. 125KS-01

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

continued on back

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	5	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 12-85-1122
 Field Sample No. 1-ES-3, SS-7
 Date Collected 12-16-85
 Date Received 12/17/85
 Date Analyzed 12/20/85

Johnny R. Adamson
 Sample Matrix:

☐ Water (ug/L)

☒ Soil (ug/g)

☐ Other _____

Dilution Factor _____

*Moisture _____ %

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

continued on back

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<10		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 12-85-1123
 Field Sample No. 1-ES-4 SS-1
 Date Collected 12-16-85
 Date Received 12/17/85
 Date Analyzed 12/26/85

Johnny R. Adams

QC Report No. PJKS-01

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

continued on back

L-23

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1124Client U.S. Air ForceField Sample No. 1-PS-4, SS-2Project PJKS (Denver)Date Collected 12-16-85

Client No. _____

Date Received 12/17/85

Laboratory Supervisor Approval: _____

Date Analyzed 12/20/85Johnny R. AdelmanQC Report No. 2540-01Sample Matrix: 0☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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L-25

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 12-85-1125
 Field Sample No. 1-ES-4, SS-3
 Date Collected 12-16-85
 Date Received 12/17/85
 Date Analyzed 12/26/85

Johnny R. Adams
 Sample Matrix:

QC Report No. PJAS-01

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1126Client U.S. Air ForceField Sample No. 1-ES-4 SS-4Project PJKS (Denver)Date Collected 12-16-85

Client No. _____

Date Received 12/17/85

Laboratory Supervisor Approval: _____

Date Analyzed 12/26/85Johnny R. Coleman
Sample Matrix: _____QC Report No. PJKS-02/ / Water (ug/L)

Dilution Factor _____

/X / Soil (ug/g)

*Moisture _____ %

/ / Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1127Client U.S. Air ForceField Sample No. 1-ES-4 SS-5Project PJKS (Denver)Date Collected 12-16-85

Client No. _____

Date Received 12/17/85

Laboratory Supervisor Approval: _____

Date Analyzed 12/26/85Johnny R. Cadenas
Sample Matrix:☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	18	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<14		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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L-31

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	40		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1128Client U.S. Air ForceField Sample No. 1-ES-4, SS-6Project PJKS (Denver)Date Collected 12-16-85

Client No. _____

Date Received 12/17/85

Laboratory Supervisor Approval: _____

Date Analyzed 12/26/85Johnny R. AdamsenQC Report No. PJKS-02Sample Matrix: 0/ Water (ug/L)

Dilution Factor _____

/X Soil (ug/g)

*Moisture _____

/ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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L-33

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	50		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 12-85-1129
 Field Sample No. 1-ES-5, SS-1
 Date Collected 12-16-85
 Date Received 12/17/85
 Date Analyzed 12/27/85

Johnny R. Adams
 Sample Matrix: _____

QC Report No. PJKS-02

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

continued on back

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Compound	Concentration		Retention Time		Notes
	Det	Lim	Column 1	Column 2	
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1135
Field Sample No. 1-ES-5, 55-2
Date Collected 12-16-85
Date Received 12/17/85
Date Analyzed 12/27/85Johnny R. Adamsen
Sample Matrix: _____QC Report No. PJKS-02☐ Water (ug/L)
☒ Soil (ug/g)
☐ Other _____Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det	Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4		<10		40.9	
bis(2-chloroethoxy) methane	12		<12		44.2	
bis(2-chloroisopropyl) ether	25		<25		42.2	
Bromobenzene	8		<10		29.18	
Bromodichloromethane	2		<10		15.69	
Bromoform	4		<10		21.24	
Bromomethane	24		<24		2.85	
Carbon tetrachloride	3		<10		15.47	
Chloroacetaldehyde	10		<10		11.6	
Chloral	10		<10		18.7	
Chlorobenzene	5		<10		26.01	
Chloroethane	10		<10		4.51	
Chloroform	1		<10		13.01	
1-Chlorohexane	2		<10		26.58	
2-Chloroethyl vinyl ether	3		<10		19.49	
Chloromethane	2		<10		1.95	
Chloromethyl methyl ether	20		<20		9.37	
Chlorotoluene	4		<10		37.9	
Dibromochloromethane	2		<10		18.68	

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1131
Field Sample No. 1-ES-5, SS-3
Date Collected 12-16-85
Date Received 12/17/85
Date Analyzed 12/27/85Johnny R. Adams
Sample Matrix: 0QC Report No. PJKS-22/ Water (ug/L)

Dilution Factor _____

/X Soil (ug/g)

*Moisture _____

/ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-55-1132Client U.S. Air ForceField Sample No. 1-ES-5, 55-7Project PJKS (Denver)Date Collected 12-16-85

Client No. _____

Date Received 12/17/85

Laboratory Supervisor Approval: _____

Date Analyzed 12/27/85Johnny R. Cidman
Sample Matrix: _____QC Report No. PJK-02/ Water (ug/L)

Dilution Factor _____

/X Soil (ug/g)

*Moisture _____ %

/ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<10		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 12-85-1133
 Field Sample No. 1-E5-5, SS-5
 Date Collected 12-16-85
 Date Received 12/17/85
 Date Analyzed 12/27/85

Johnny R. Adamson
 Sample Matrix:

QC Report No. PJKS-02

☐ Water (ug/L)
☒ Soil (ug/g)
☐ Other _____

Dilution Factor _____
 *Moisture _____ %

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<10		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1134Client U.S. Air ForceField Sample No. 1-ES-5, SS-6Project PJKS (DenverDate Collected 12-16-85

Client No. _____

Date Received 12/17/85

Laboratory Supervisor Approval:

Date Analyzed 12/27/85Johnny R. AdamsQC Report No. PJKS-02

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1144Client U.S. Air ForceField Sample No. 1-ES-6, SS-1Project PJKS (Denver)Date Collected 12-17-85

Client No. _____

Date Received 12/18/85

Laboratory Supervisor Approval:

Date Analyzed 12/28/85Johnny R. Adamson
Sample Matrix: JQC Report No. PJKS-02☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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Discrepancy in clock noted.

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 12-85-1145
 Field Sample No. 1-ES-6 55-2
 Date Collected 12-17-85
 Date Received 12-18-85
 Date Analyzed 12/28/85

Johnny R. Coleman

QC Report No. PJKS-C3

Sample Matrix

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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L-49

Discrepancy in clock noted

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 12-85-1146
 Field Sample No. 1-ES-6, 55-3
 Date Collected 12-17-85
 Date Received 12-18-85
 Date Analyzed 12/28/85

Johnny R. Adamson
 Sample Matrix: _____

QC Report No. PJKS-03

/ Water (ug/L)

Dilution Factor _____

/X Soil (ug/g)

*Moisture _____ %

/ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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Discrepancy in clock noted.

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1147Client U.S. Air ForceField Sample No. 1-ES-6, SS-4Project PJKS (Denver)Date Collected 12-17-85

Client No. _____

Date Received 12-18-85

Laboratory Supervisor Approval: _____

Date Analyzed 1/3/86Johnny R. ColemanQC Report No. PJKS-C-3Sample Matrix: D☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1148Client U.S. Air ForceField Sample No. 1-ES-6, 55-5Project PJKS (Denver)Date Collected 12-17-85

Client No. _____

Date Received 12-18-85

Laboratory Supervisor Approval: _____

Date Analyzed 1/3/86Johnny R. Coleman
Sample MatrixQC Report No. PJKS-43☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 12-85-1149
 Field Sample No. 1-ES-6, SS-6
 Date Collected 12-17-85
 Date Received 12-18-85
 Date Analyzed 1/3/86

Johnny R. Adams
 Sample Matrix: _____

QC Report No. PJKS-03

☐ / Water (ug/L)

Dilution Factor _____

☒ / Soil (ug/g)

*Moisture _____ %

☐ / Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-55-1156
Field Sample No. 1-ES-7, SS-1
Date Collected 12-18-85
Date Received 12-19-85
Date Analyzed 1/1/86Johnny R. Adkinson
Sample Matrix 0QC Report No. PJKS-03☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

12-85-1150

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1157Client U.S. Air ForceField Sample No. 1-ES-7 SS 2Project PJKS (Denver)Date Collected 12-18-85

Client No. _____

Date Received 12-19-85

Laboratory Supervisor Approval: _____

Date Analyzed 1/1/86Johnny R. Adams
Sample Matrix: _____QC Report No. PJKS - C3☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<10		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1158Client U.S. Air ForceField Sample No. 1-ES-7, SS-3Project PJKS (Denver)Date Collected 12-18-85

Client No. _____

Date Received 12-19-85

Laboratory Supervisor Approval: _____

Date Analyzed 1/1/86Johnny R. AdamsonQC Report No. PJKS-C3

Sample Matrix: _____

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<10		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-55-1157Client U.S. Air ForceField Sample No. 1-ES-7 SS-4Project PJKS (Denver)Date Collected 12-19-85

Client No. _____

Date Received 12-14-85

Laboratory Supervisor Approval: _____

Date Analyzed 1/1/86Johnny R. AdamsQC Report No. PJKS-CSSample Matrix: 0☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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L-65

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-35-1160Client U.S. Air ForceField Sample No. 1-ES 7, SS 5Project PJKS (Denver)Date Collected 12-18-85

Client No. _____

Date Received 12-19-85

Laboratory Supervisor Approval: _____

Date Analyzed 1/1/86Johnny R. AdamsonQC Report No. PJKS-C3

Sample Matrix: _____

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-116.1Client U.S. Air ForceField Sample No. 1-ES-7, SS-6Project PJKS (Denver)Date Collected 12-18-85

Client No. _____

Date Received 12-19-85

Laboratory Supervisor Approval: _____

Date Analyzed 1/1/86Johnny R AdamsQC Report No. PJKS-C4Sample Matrix: 0/ Water (ug/L)

Dilution Factor _____

/X Soil (ug/g)

*Moisture _____ %

/ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	.4	<10		21.24		
Bromomethane	.24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	.10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	5	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 12-55-1116Client U.S. Air ForceField Sample No. 1-ES-3 SS-1 : C-1.5'Project PJKS (Denver)Date Collected 12/16/85

Client No. _____

Date Received 12/17/85

Laboratory Supervisor Approval: _____

Date Analyzed 12/23/85Johnny R. AdamsenOC Report No. 56528-1

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1117Client U.S. Air ForceField Sample No. 1-ES-3 SS-2:4.0-5.0Project PJKS (Denver)Date Collected 12/16/85

Client No. _____

Date Received 12/17/85

Laboratory Supervisor Approval:

Date Analyzed 12/23/85Johnny R. AdamsQC Report No. 56528-1

Sample Matrix

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Lab Sample No. 12-ES-111R
Field Sample No. 1-ES-3 SS-3:6.5-8.0'
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/24/85Johnny R. AdamsQC Report No. 56528-1

Sample Matrix:

☐ Water (ug/L)☒ Soil (ug/g)☐ Other Dilution Factor *Moisture %

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1119Client U.S. Air ForceField Sample No. 1-ES-3 SS-4: 9, C-10, 2Project PJKS (Denver)Date Collected 12/16/85

Client No. _____

Date Received 12/17/85

Laboratory Supervisor Approval:

Date Analyzed 12/24/85Johnny R. AdamsQC Report No. 56528-1

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	.4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	.4	<10		5.47	
Xylenes (Dimethyl benzene)	.4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval:Lab Sample No. 12-85-1120
Field Sample No. 1-ES-3, SS-5; 12.5-14'
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/24/85Johnny R. AdamsQC Report No. 56528-1

Sample Matrix:

☐ Water (ug/L)☒ Soil (ug/g)☐ Other Dilution Factor *Moisture %

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Client U.S. Air ForceProject PJKS (Denver)

Client No. _____

Laboratory Supervisor Approval: _____

Lab Sample No. 12-85-1121Field Sample No. 1-ES-3, SS-6: 16.5-18.0Date Collected 12/16/85Date Received 12/17/85Date Analyzed 12/26/85Johnny R. AdamsQC Report No. 56528-1

Sample Matrix:

☐ Water (ug/L)☒ Soil (ug/g)☐ Other _____

Dilution Factor _____

*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1122
Field Sample No. 1-ES-3, SS-7, 19.5-20.5'
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/24/85Johnny R. Adamson
Sample MatrixQC Report No. 56528-1☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	3	<10		27.93		
1,3-Dichlorobenzene	3	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1123
Field Sample No. 1-ES-7, SS-1, 1.5-2.0
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/26/85Johnny R. Adamson
Sample Matrix:/ / Water (ug/L)/X / Soil (ug/g)/ / Other _____QC Report No. 56528-1

Dilution Factor _____

*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1124
Field Sample No. 1-ES-4, SS-2:5.0-7.0'
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/26/85Johnny R. Adams
Sample MatrixOC Report No. 56528-1☐ / Water (ug/L)

Dilution Factor _____

☒ / Soil (ug/g)

*Moisture _____ %

☐ / Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	.4	<10		2.26	
Chlorobenzene	.4	<10		16.46	
1,2-Dichlorobenzene	.8	<10		27.93	
1,3-Dichlorobenzene	.8	<10		26.40	
1,4-Dichlorobenzene	.6	<10		22.51	
Ethyl benzene	.4	<10		7.18	
Toluene	.4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1125Client U.S. Air ForceField Sample No. 1-85-4, 55-3, 8.5-10.0Project PJKS (Denver)Date Collected 12/16/85Client No. Date Received 12/12/85Laboratory Supervisor Approval: Date Analyzed 12/26/85Johnny R. AdamsQC Report No. 56528-1Sample Matrix: / Water (ug/L)Dilution Factor / Soil (ug/g)*Moisture % / Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 12-85-1126Client U.S. Air ForceField Sample No. 1-ES-4 SS-4; 11.5-12.5Project PJKS (Denver)Date Collected 12/16/85

Client No. _____

Date Received 12/17/85

Laboratory Supervisor Approval: _____

Date Analyzed 12/26/85Johnny R. AdamsQC Report No. 56528-2

Sample Matrix

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Lab Sample No. 12-85-1127
Field Sample No. 1-ES-433-5214.5-16
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/26/85Johnny R. Adams
Sample Matrix QC Report No. 56528-2 / / Water (ug/L) / X / Soil (ug/g) / / Other Dilution Factor *Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 12-85-1128Client U.S. Air ForceField Sample No. 1-ES-4, SS-6: 19.0-20.5'Project PJKS (Denver)Date Collected 12/16/85

Client No. _____

Date Received 12/17/85

Laboratory Supervisor Approval: _____

Date Analyzed 12/26/85Johnny R. AdamsQC Report No. 56528-2

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Lab Sample No. 12-85-1129
Field Sample No. 1-ES-5-51-C-2
Date Collected 12/14/85
Date Received 12/17/85
Date Analyzed 12/27/85Johnny R. Adamson
Sample Matrix: QC Report No. 56528-1 / Water (ug/L)Dilution Factor /X / Soil (ug/g)*Moisture % / Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	3	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

2P

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 12-85-1130Client U.S. Air ForceField Sample No. 1-ES-5 SS-2: 2-4'Project PJKS (Denver)Date Collected 12/16/85

Client No. _____

Date Received 12/17/85

Laboratory Supervisor Approval:

Date Analyzed 12/27/85Johnny R. AdamsonQC Report No. 56528-2

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.04	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1131
Field Sample No. 1-ES-5, 3S3: 4-6'
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/27/85QC Report No. 56528-2

Sample Matrix

☐ Water (ug/L)☒ Soil (ug/g)☐ Other _____

Dilution Factor _____

*Moisture _____ %

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1132
Field Sample No. 1-ES-5, SS+; 9-11'
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/27/85Johnny R. Adams
Sample Matrix _____OC Report No. 56528-2☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1133
Field Sample No. 1-ES-5, SSS; 14-16'
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/27/85Johnny R. Adams
Sample Matrix: _____QC Report No. 56528-2☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1134
Field Sample No. 1-ES-5,556; 10-22.5'
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/27/85Johnny R. Adams
Sample Matrix: _____QC Report No. 56528-2☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report ES Job No. 56528Lab Sample No. 12-85-1144Client U.S. Air ForceField Sample No. 1-ES-6 SS-1-C-2Project PJKS (Denver)Date Collected 12/17/85Client No. Date Received 12/18/85

Laboratory Supervisor Approval:

Date Analyzed 12/28/85Johnny R. AdamsQC Report No. 56528-2

Sample Matrix:

 / Water (ug/L)Dilution Factor / X / Soil (ug/g)*Moisture % / Other

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Discrepancy in Clock noted.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 12-85-1145
Field Sample No. 1-ES-6, SS-2, 2-4'
Date Collected 12/17/85
Date Received 12/18/85
Date Analyzed 12/28/85

Johnny R. Adamson
Sample Matrix: _____

QC Report No. 56528-3

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

Discrepancy in clock noted.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval:Lab Sample No. 12-85-1146
Field Sample No. 1-ES-C, SS-3, S-7'
Date Collected 12/17/85
Date Received 12/18/85
Date Analyzed 12/28/85QC Report No. 56528-3Johnny R. Adams
Sample Matrix☐ Water (ug/L)☒ Soil (ug/g)☐ Other _____

Dilution Factor _____

*Moisture _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	3	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
				15.26	
				16.91	
Xylenes (Dimethyl benzene)	4	<10		17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

Discrepancy in clock noted.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
ReportES Job No. 56528Lab Sample No. 12-85-1147Client U.S. Air ForceField Sample No. 1-ES-6, SS-4, 9-11Project PJKS (Denver)Date Collected 12/17/85

Client No. _____

Date Received 12/18/85

Laboratory Supervisor Approval:

Date Analyzed 1/3/86Johnny R. AdamsQC Report No. 56528-3

Sample Matrix

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1148
Field Sample No. 1-ES-6, SS-5, 14-16'
Date Collected 12/17/85
Date Received 12/18/85
Date Analyzed 1/3/86Johnny R. Adams
Sample Matrix:☐ Water (ug/L)☒ Soil (ug/g)☐ Other _____QC Report No. 56528-3

Dilution Factor _____

*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1149Client U.S. Air ForceField Sample No. 1-ES-6, SS-6, 19-21'Project PJKS (Denver)Date Collected 12/17/85

Client No. _____

Date Received 12/18/85

Laboratory Supervisor Approval: _____

Date Analyzed 1/3/86Johnny R. AdamsonQC Report No. 56528-3

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	.4	<10		2.26	
Chlorobenzene	.4	<10		16.46	
1,2-Dichlorobenzene	.8	<10		27.93	
1,3-Dichlorobenzene	.8	<10		26.40	
1,4-Dichlorobenzene	.6	<10		22.51	
Ethyl benzene	.4	<10		7.18	
Toluene	.4	<10		5.47	
Xylenes (Dimethyl benzene)	.4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report ES Job No. 56528Lab Sample No. 12-85-1156Client U.S. Air ForceField Sample No. 1-ES-7, SS-1, 0-2'Project PJKS (Denver)Date Collected 12/18/85Client No. Date Received 12/19/85

Laboratory Supervisor Approval:

Date Analyzed 1/1/86Johnny R. AdamsonQC Report No. 56528-3

Sample Matrix

 / Water (ug/L)Dilution Factor /X / Soil (ug/g)*Moisture % / Other

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 12-85-1157Client U.S. Air ForceField Sample No. 1-ES-7, SS-2, 2-4'Project PJKS (Denver)Date Collected 12/18/85

Client No. _____

Date Received 12/19/85

Laboratory Supervisor Approval: _____

Date Analyzed 1/1/86Johnny R. Adamsen
Sample MatrixQC Report No. 56528-3☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 12-85-1158Client U.S. Air ForceField Sample No. 1-ES-7, SS-3, S-7'Project PJKS (Denver)Date Collected 12/18/85

Client No. _____

Date Received 12/19/85

Laboratory Supervisor Approval: _____

Date Analyzed 1/1/86Johnny R. Adams
Sample Matrix:☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	.4	<10		2.26	
Chlorobenzene	.4	<10		16.46	
1,2-Dichlorobenzene	.8	<10		27.93	
1,3-Dichlorobenzene	.8	<10		26.40	
1,4-Dichlorobenzene	.6	<10		22.51	
Ethyl benzene	.4	<10		7.18	
Toluene	.4	<10		5.47	
Xylenes (Dimethyl benzene)	.4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 12-85-1159Client U.S. Air ForceField Sample No. 1-ES-7, SS-4, 9-11'Project PJKS (Denver)Date Collected 12/18/85

Client No. _____

Date Received 12/19/85

Laboratory Supervisor Approval: _____

Date Analyzed 1/1/86Johnny R. Adams
Sample MatrixQC Report No. 56528-3☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report ES Job No. 56528Lab Sample No. 12-85-1160Client U.S. Air ForceField Sample No. 1-ES-7, SS-5, 14-16Project PJKS (Denver)Date Collected 12/18/85Client No. Date Received 12/19/85

Laboratory Supervisor Approval:

Date Analyzed 1/1/86Johnny R. AdamsQC Report No. 56528-3

Sample Matrix:

☐ Water (ug/L)Dilution Factor ☒ Soil (ug/g)*Moisture ☐ Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Lab Sample No. 12-85-1161
Field Sample No. 1-ES-7, SS-6, 19-21
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86Johnny R. Adamson
Sample Matrix: QC Report No. 56528-4 / Water (ug/L) / X / Soil (ug/g) / Other Dilution Factor *Moisture %

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	.4	<10		2.26	
Chlorobenzene	.4	<10		16.46	
1,2-Dichlorobenzene	.8	<10		27.93	
1,3-Dichlorobenzene	.8	<10		26.40	
1,4-Dichlorobenzene	.6	<10		22.51	
Ethyl benzene	.4	<10		7.18	
Toluene	.4	<10		5.47	
				15.26	
				16.91	
Xylenes (Dimethyl benzene)	.4	<10		17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality ParametersPage / of /
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ES Job No. 56528
 Client USAF
 Project PJKS
 Client No. _____
 Date Collected 12/16/85
 Date Received 12/17/85

GC Report No. _____

Laboratory Supervisor Approval:

Johnny R. Adams

Dilution Factor _____

* Moisture _____

Sample Matrix:

☐ Water (ug/L)☒ Soil (ug/g)☐ Other

Field Sample No.	Lab Sample No.	NO ₂	NO ₃	Phenol	TKN	Cr VI	Notes
PJKS, 1-ES-3, SS-10-15	1285-1116	0.13	5.0	0.6	919	<0.17	
PJKS, 1-ES-3, SS-2-45	-1117	1.9	21.0	0.7	180	<0.17	
PJKS, 1-ES-3, SS-3-16-58	1118	0.099	1.0	<0.5	110*	<0.17	
PJKS, 1-ES-3, SS-49-70.2	1119	0.15	<1.0	<0.5	150*	<0.17	
PJKS, 1-ES-3, SS-5-125-41	1120	0.12	5.0	<0.5*	40*	<0.17	
PJKS, 1-ES-3, SS-6-65-48	1121	0.349	2.0	<0.5*	50*	<0.17	
PJKS, 1-ES-3, SS-7-115-25	1122	0.088	<1.0	<0.5*	54*	<0.17	
PJKS, 1-ES-4, SS-1-1-2	1123	0.415	5.5	<0.5*	190*	0.17	
PJKS, 1-ES-4, SS-2-5-7	1124	0.094	7.0	<0.5*	604*	0.19*	
PJKS, 1-ES-4, SS-3-85-70	✓ 1125	0.15	6	<0.5*	170*	<0.17	
Date Analyzed	M / D	12 / 20	12 / 20	1 / 3+8*	12 / 12+25*	12 / 25+26*	
Analytical Method		EPH 354.1	352.1	EPH 420.1	EPH 351.3	EPH 719.6	

* If moisture is reported, results are presented on a dry-weight basis.

0590111

* Indicated which date sample was analyzed when more than

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ANALYTICAL, RESULTS SUMMARY

ES Job No. 56528
Client USAF
Project PTKS
Client No. _____
Date Collected 12/16/85
Date Received 12/17/85

QC Report No. _____
Laboratory Supervisor Approval: Johnny P. Adams
Inclusion Factor _____
Moisture _____

Sample Matrix:

Water (ug/l.)	1/
Soil (ug/g)	1/
Other	1/

Field Sample No.	Lab Sample No.	NO_2	NO_3	Phosphorus	TKN	Cr^{VI}
1-35-4, 55-4, 115-2	12-85-1126	0.13	8	<0.5	110	<0.17
1-35-4, 55-5, 115-6	1127	0.17	<1	<0.5	67	<0.17
1-35-4, 55-6, 119-20.5	1128	0.17	2	0.7	58	<0.17
1-35-5, 55-1, 115-2	1129	0.400		0.5	633	<0.17
1-35-5, 55-2, 2-4	1130	0.14	<1	0.5	588	0.21
1-35-5, 55-3, 4-6	1131	0.23	<1	<0.5	412	<0.17
1-35-5, 55-4, 7-11	1132	0.25	3.5	<0.5	72	<0.17
1-35-5, 55-5, 11-16	1133	0.10	<1	1.0	50	<0.17
1-35-5, 55-6, 19-22.5	1134	0.096	<1	<0.5	28	<0.17
Date Analyzed	M D	12 >0	12 20+23	1 9	13 26	12 23
Analytical Method		SPM 354	SPM 354.1	SPM 420.1	SPM 446	SPM 7196

• If moisture is reported, results are presented on a dry-weight basis.

* analysis provided

ANALYTICAL, RESULTS SUMMARY

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W. REXELT, INC.

Laboratory Supervisor Approval:

Sample Matrix:

million F. 6.10r

Figure 1

/ / Other

Field Sample No.	Lab Sample No.	NO ₂	NO ₃	Phermides	TKN	C _v VI			Dates
PTS 1-SS-7, SS-10-2'	12-85, 1156	0.21	<1	<0.5	730	0.70			
" " " " " "	1157	0.12	<1	<0.5	400	<0.17			
" " " " " "	1158	<0.08	<1	<0.5	120	<0.17			
" " " " " "	1159	<0.08	<1	<0.5	30	<0.17			
" " " " " "	1160	<0.08	<1	<0.5	34	<0.17			
" " " " " "	✓ 1161	<0.08	<1	<0.5	73	<0.17			
Date Analyzed	M D	12 27	1 24	1 9	1 21	12 30			
Analytical Method		SPA 354.1	SPA 352.1	EPH 40.1	SPA 351.3	SPA 7196			

* If a moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality ParametersPage 1 of 1
ReportES Job No. 56528Client USAFProject VJKSClient No. Date Collected 12/11/85Date Received 12/17/85QC Report No.

Laboratory Supervisor Approval:

Johnny R. AdamsonDilution Factor *Moisture

Sample Matrix:

 / Water (ug/L) / Soil (ug/g) (ug/Kg) / Other

Field Sample No.	Lab Sample No.	NO ₂	NO ₃	Phenolics	TKN	C _r	Notes
PJKS 1-25-4 55-4:14.5-12	12-85-1126	0.13	8	<0.5	110	<0.17	
1-25-4 55-5:14.5-6	1127	0.17	<1	<0.5	67	<0.17	
1-25-4 55-6:19-24.5	1128	0.17	2	0.7	58	<0.17	
1-25-5 55-1:6-21	1129	0.400		0.5	633	<0.17	
1-25-5 55-2:2-41	1130	0.14	<1	0.5	588	0.21	
1-25-5 55-3:4-61	1131	0.23	<1	<0.5	412	<0.17	
1-25-5 55-4:9-111	1132	0.25	3.5	<0.5	72	<0.17	
1-25-5 55-5:14-161	1133	0.10	<1	1.0	50	<0.17	
1-25-5 55-6:19-220	1134	0.096	<1	<0.5	28	<0.17	
Date Analyzed	M D	12 >0	12 50+23	1 9	13 26	12 33	
Analytical Method		2711 3541	2711 3521	EPA 420.1	EPA 7196	EPA 7196	

* If A moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client USAF
Project PTKS Plant
Client No. _____
Date Collected 12/17/85
Date Received 12/18/85

QC Report No. _____
Laboratory Supervisor Approval: Johnny R. Adams
Dilution Factor _____
Moisture _____

Sample Matrix:

<input type="checkbox"/>	Water (ug/L)
<input checked="" type="checkbox"/>	Soil (ug/g) (ug/Kg)
<input type="checkbox"/>	Other

Field Sample No.	Lab Sample No.	N _D	N _U	Phenolics	TKN	C _T	Notes
PtKS-65597-21	12-85-1144	0.16*	<1*	<0.5	B#0	<0.17	
SS-2,2-4'	1145	0.04"	<1*	<0.5	300	<0.17	
SS-3,5-7'	1146	0.24	<1	0.7	520	<0.17	
SS-4,9-11'	1147	0.08*	<1*	<0.5	30	<0.17	
SS-5,10-16'	1148	0.078*	1*	<0.5	50*	<0.17	
SS-6,19-21'	↓ 1149	0.069'	<1*	<0.5	60*	<0.17	
Date Analyzed	M D	12 30	12 30	1 9	12 30	12 30	
Analytical Method		ΣPIL 34.1	ΣPIL 35.2	EPA 420.1	EPA 351.3	EPA 719C	

* If a moisture is reported, results are presented on a dry-weight basis.

56528

11-15-11

2. Ticks Giant

Client No. _____

ed 12/18/85

d 12/19/85

Supervisor Approval:

James M. Smith

Dilution Factor

Moisture

Field Sample No.	Lab Sample No.	NO ₃	NO ₃	pH _{undist}	TKN	C _V %	Notes
PJSS 1-85-7550-2'	12-85-1156	0.21	<1	<0.5	730	0.70	
" " 55-2, 2-4'	1157	0.12	<1	<0.5	400	<0.17	
" " 55-35-7	1158	<0.08	<1	<0.5	120	<0.12	
" " 55-49-1'	1159	<0.08	<1	<0.5	30	<0.17	
" " 55-5 14-16	1160	<0.08	<1	<0.5	34	<0.17	
" " 55-5 19-21'	1161	<0.08	<1	<0.5	73	<0.17	
Date Analyzed	M D	12 27	1 24	1 9	1 21	12 30	
Analytical Method		EPA 304.1 EPA 304.1	EPA 304.1 EPA 304.1	EPA 400.1	EPA 351.3	EPA 7196	

* If % moisture is reported, results are presented on a dry-weight basis.

Results for Site 2
8010, 8020, Metals and Inorganic Parameters

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1192
Field Sample No. 2-ES-9, SS-1
Date Collected 12-19-85
Date Received 12-20-85
Date Analyzed 1/2/86Johnny R. Adams
Sample Matrix: _____QC Report No. PJKS-65☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

continued on back

L-110

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	.1	<10		13.09	
1,2-Dichlorobenzene	.3	<10		60.10	
1,3-Dichlorobenzene	.6	<10		42.90	
1,4-Dichlorobenzene	.5	<10		37.28	
Dichlorodifluoromethane	.30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	.5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	.6	<10		18.68	
1,1,2,2-Tetrachloroethane	.7	<10		23.47	
1,1,1,2-Tetrachloroethane	.7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1193
Field Sample No. 2-ES-9, SS-2
Date Collected 12-19-85
Date Received 12-20-85
Date Analyzed 1/2/86Johnny R Adams
Sample Matrix: _____QC Report No. PJKS-05☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	3	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval:Lab Sample No. 12-85-1194
Field Sample No. 2-ES-9, SS-3
Date Collected 12-19-85
Date Received 12-20-85
Date Analyzed 1/2/86Johnny R. Adams
Sample Matrix:☐ Water (ug/L)☒ Soil (ug/g)☐ Other _____QC Report No. PJKS-CS

Dilution Factor _____

*Moisture _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1195
Field Sample No. 2-ES-9, SS-4
Date Collected 12-19-85
Date Received 12-20-85
Date Analyzed 1/2/86Johnny R. Adams
Sample Matrix: _____QC Report No. PJKS CS☐ Water (ug/L)
☒ Soil (ug/g)
☐ Other _____Dilution Factor _____
*Moisture _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
 Halogenated Volatile Organics
 SW Method 8010
 (second of two pages)

12-85-1195

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<10		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1196Client U.S. Air ForceField Sample No. 2-ES-9, SS 5Project PJKS (Denver)Date Collected 12-11-85

Client No. _____

Date Received 12-20-85

Laboratory Supervisor Approval: _____

Date Analyzed 1/2/86Johnny R. Adams
Sample Matrix: _____QC Report No. PJKS 05☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	1	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	5	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval:Lab Sample No. 1-86-1001
Field Sample No. 2-ES-11, SS-1
Date Collected 1-1-86
Date Received 1-2-86
Date Analyzed 1/6/86Johnny R. Adams
Sample Matrix:☐ Water (ug/L)☒ Soil (ug/g)☐ Other _____QC Report No. PJKS-07

Dilution Factor _____

*Moisture _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 1-86-1002
 Field Sample No. 2-ES-11, SS-2
 Date Collected 1-1-86
 Date Received 1-2-86
 Date Analyzed 1/6/86

Johnny R. Adamson
 Sample Matrix:

QC Report No. PJKS-07

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1003Client U.S. Air ForceField Sample No. 2-ES-11, SS-3Project PJKS (Denver)Date Collected 1-1-86

Client No. _____

Date Received 1-2-86

Laboratory Supervisor Approval:

Date Analyzed 1/6/86Johnny R. Adamson
Sample Matrix:QC Report No. PJKS-07☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 1-86-1004
Field Sample No. 2-ES-11, SS-4
Date Collected 1-1-86
Date Received 1-2-86
Date Analyzed 1/6/86Johnny R. Adams
Sample Matrix: _____QC Report No. PJKS-07/ Water (ug/L)

Dilution Factor _____

/X Soil (ug/g)

*Moisture _____

/ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 1-86-1005
Field Sample No. 2-ES-11, SS-5
Date Collected 1-1-86
Date Received 1-2-86
Date Analyzed 1/6/86Johnny R. Adams
Sample Matrix: _____QC Report No. PJKS-07☐ Water (ug/L)☒ Soil (ug/g)☐ Other _____

Dilution Factor _____

*Moisture _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	0.4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1006Client U.S. Air ForceField Sample No. 2-ES-13, SS-1Project PJKS (Denver)Date Collected 1-1-86

Client No. _____

Date Received 1-2-86

Laboratory Supervisor Approval: _____

Date Analyzed 1/6/86Johnny R. AdamsQC Report No. PJKS-07

Sample Matrix:

/ Water (ug/L)

Dilution Factor _____

/X Soil (ug/g)

*Moisture _____

/ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1007Client U.S. Air ForceField Sample No. 2-ES-13, SS-2Project PJKS (Denver)Date Collected 1-1-86

Client No. _____

Date Received 1-2-86

Laboratory Supervisor Approval: _____

Date Analyzed 1/7/86Johnny R. AdamsonQC Report No. PJKS-07

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		18.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
 Halogenated Volatile Organics
 SW Method 8010
 (second of two pages)

1-86-1007

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1008Client U.S. Air ForceField Sample No. 2-ES-13, 55-3Project PJKS (Denver)Date Collected 1-1-86

Client No. _____

Date Received 1-2-86

Laboratory Supervisor Approval: _____

Date Analyzed 1/7/86Johnny R. AdamsQC Report No. PJKS-07

Sample Matrix:

/ / Water (ug/L)

Dilution Factor _____

/X / Soil (ug/g)

*Moisture _____ %

/ / Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	230		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1009Client U.S. Air ForceField Sample No. 2-ES-14, SS-1Project PJKS (Denver)Date Collected 1-1-86

Client No. _____

Date Received 1-2-86

Laboratory Supervisor Approval:

Date Analyzed 1/7/86Johnny R. AdamsonQC Report No. PJKS-07

Sample Matrix:

☐ / Water (ug/L)

Dilution Factor _____

☒ / Soil (ug/g)

*Moisture _____

☐ / Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	3	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1010Client U.S. Air ForceField Sample No. 2-ES-14, SS-2Project PJKS (Denver)Date Collected 1-1-86

Client No. _____

Date Received 1-2-86

Laboratory Supervisor Approval: _____

Date Analyzed 1/7/86Johnny R AdamsQC Report No. PJKS-07

Sample Matrix: _____

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10	-	19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval:Lab Sample No. 1-36-1011
Field Sample No. 2-ES-14, 55-3
Date Collected 1-1-86
Date Received 1-2-86
Date Analyzed 1/7/86QC Report No. PJKS-03

Sample Matrix:

☐ Water (ug/L)
☒ Soil (ug/g)
☐ Other _____Dilution Factor _____
*Moisture _____ %

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 1-86-1012
 Field Sample No. 2-ES-14, SS 4
 Date Collected 1-1-86
 Date Received 1-2-86
 Date Analyzed 1/7/86

Johnny R. Adams

QC Report No. PJKS-03

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
 Halogenated Volatile Organics
 SW Method 8010
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1-86-1012

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	430		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 1-86-1013
 Field Sample No. 2-ES-14, SS-5
 Date Collected 1-1-86
 Date Received 1-2-86
 Date Analyzed 1/7/86

John R. Cuddeback
 Sample Matrix: _____

QC Report No. PJKS-03

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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ANALYTICAL RESULTS SUMMARY
 Halogenated Volatile Organics
 SW Method 8010
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1-86-1013

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report ES Job No. 56528Lab Sample No. 12-85-1192Client U.S. Air ForceField Sample No. 2-ES-9, SS-1, C-2'Project FJKS (Denver)Date Collected 12/14/85Client No. Date Received 12/20/85Laboratory Supervisor Approval: Date Analyzed 1/2/86Johnny R. AdamsonQC Report No. 56528-5Sample Matrix / Water (ug/L)Dilution Factor / Soil (ug/g)*Moisture % / Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report ES Job No. 56528Lab Sample No. 12-85-1193Client U.S. Air ForceField Sample No. 2-ES-9, SS-2, 2-4'Project FJKS (Denver)Date Collected 12/19/85Client No. Date Received 12/30/85Laboratory Supervisor Approval: Date Analyzed 1/2/86Johnny R. AdamsonOC Report No. 56528-5Sample Matrix / Water (ug/L)Dilution Factor / X / Soil (ug/g)*Moisture % / Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
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Report _____ES Job No. 56528Lab Sample No. 12-85-1194Client U.S. Air ForceField Sample No. 2-ES-9, SS-3, S-7Project FJKS (Denver)Date Collected 12/19/85

Client No. _____

Date Received 12/20/85

Laboratory Supervisor Approval:

Date Analyzed 1/2/86Johnny R. AdamsonQC Report No. 56528-5

Sample Matrix

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval:Lab Sample No. 12-85-1195
Field Sample No. 2-ES-9,SS-4,9-11
Date Collected 12/19/85
Date Received 12/26/85
Date Analyzed 1/2/86Johnny R. AdamsonQC Report No. 56528-5

Sample Matrix

☐ Water (ug/L)☒ Soil (ug/g)☐ Other _____

Dilution Factor _____

*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project FJKS (Denver)
Client No.
Laboratory Supervisor Approval: Lab Sample No. 12-85-1196
Field Sample No. 2-ES-9, SS-5, 14-16
Date Collected 12/14/85
Date Received 12/20/85
Date Analyzed 1/2/86Johnny R. AdamsonQC Report No. 56528-5

Sample Matrix:

 / Water (ug/L)Dilution Factor /X/ Soil (ug/g)*Moisture % / Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	.4	<10		2.26	
Chlorobenzene	.4	<10		16.46	
1,2-Dichlorobenzene	.8	<10		27.93	
1,3-Dichlorobenzene	.8	<10		26.40	
1,4-Dichlorobenzene	.6	<10		22.51	
Ethyl benzene	.4	<10		7.18	
Toluene	.4	<10		5.47	
Xylenes (Dimethyl benzene)	.4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1001Client U.S. Air ForceField Sample No. 2-ES-11, SS-1, C-2'Project PJKS (Denver)Date Collected Client No. Date Received 1/2/86Laboratory Supervisor Approval: Date Analyzed 1/6/86Johnny P. AdamsonQC Report No. 56528-7

Sample Matrix:

 / Water (ug/L)Dilution Factor /X / Soil (ug/g)*Moisture % / Other

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene		<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report ES Job No. 56528Lab Sample No. 1-86-1002Client U.S. Air ForceField Sample No. 2-ES-11, SS-2, 2-4'Project FJKS (Denver)Date Collected Client No. Date Received 1/2/86Laboratory Supervisor Approval: Date Analyzed 1/6/86Johnny R. Adams
Sample Matrix QC Report No. 56528-7 / / Water (ug/L)Dilution Factor / / Soil (ug/g)*Moisture % / / Other

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
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Report _____ES Job No. 56528Lab Sample No. 1-86-1003Client U.S. Air ForceField Sample No. 2-ES-11, SS-3, 5-7'Project PJKS (Denver)

Date Collected _____

Client No. _____

Date Received 1/2/86

Laboratory Supervisor Approval:

Date Analyzed 1/6/86Johnny R. AdamsQC Report No. 56528-7

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1004Client U.S. Air ForceField Sample No. 2-ES-11, SS-4, 8-10'Project PJKS (Denver)Date Collected Client No. Date Received 1/2/86Laboratory Supervisor Approval: Date Analyzed 1/6/86Johnny R. Adamson
Sample MatrixQC Report No. 56528-7☐ Water (ug/L)Dilution Factor ☒ Soil (ug/g)*Moisture %☐ Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1005Client U.S. Air ForceField Sample No. 2-ES-11, SS-5, 3-15'Project PJKS (Denver)Date Collected Client No. Date Received 1/2/86Laboratory Supervisor Approval: Date Analyzed 1/6/86Johnny R. Adams
Sample Matrix: OC Report No. 56528-7 / Water (ug/L)Dilution Factor /X / Soil (ug/g)*Moisture % / Other

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report ES Job No. 56528Lab Sample No. 1-86-1006Client U.S. Air ForceField Sample No. 2-ES-13, SS-1, C-2'Project PJKS (Denver)Date Collected Client No. Date Received 1/2/86Laboratory Supervisor Approval: Date Analyzed 1/6/86Johnny R. Adams
Sample Matrix: OC Report No. 56528-7 / Water (ug/L)Dilution Factor / Soil (ug/g)*Moisture % / Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	.4	<10		2.26	
Chlorobenzene	.4	<10		16.46	
1,2-Dichlorobenzene	.8	<10		27.93	
1,3-Dichlorobenzene	.8	<10		26.40	
1,4-Dichlorobenzene	.6	<10		22.51	
Ethyl benzene	.4	<10		7.18	
Toluene	.4	<10		5.47	
Xylenes (Dimethyl benzene)	.4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 1-86-1007Client U.S. Air ForceField Sample No. 2-ES-13, SS-2, 2-4'Project PJKS (Denver)

Date Collected _____

Client No. _____

Date Received 1/2/86

Laboratory Supervisor Approval: _____

Date Analyzed 1/7/86Johnny R. Adamson
Sample Matrix: _____QC Report No. 56528-7☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report ES Job No. 56528Lab Sample No. 1-86-1008Client U.S. Air ForceField Sample No. 2-ES-13, SS-3, 5-7Project PJKS (Denver)Date Collected Client No. Date Received 1/2/86Laboratory Supervisor Approval: Date Analyzed 1/7/86Johnny R. Adams
Sample Matrix QC Report No. 56528-7 / Water (ug/L)Dilution Factor / X / Soil (ug/g)*Moisture % / Other

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 1-86-1609Client U.S. Air ForceField Sample No. 2-ES-14, SS-1, C-2'Project PJKS (Denver)

Date Collected _____

Client No. _____

Date Received 1/2/86

Laboratory Supervisor Approval:

Date Analyzed 1/7/86Johnny R. AdamsonQC Report No. 56528-7

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Lab Sample No. 1-86-1010
Field Sample No. 2-ES-14 SS-2,2-4
Date Collected
Date Received 1/2/86
Date Analyzed 1/7/86Johnny R. Adamson
Sample Matrix: QC Report No. 56528-7 / Water (ug/L)Dilution Factor / Soil (ug/g)*Moisture % / Other

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

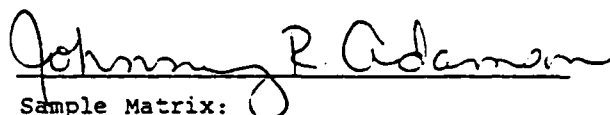
ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 1-86-1011Client U.S. Air ForceField Sample No. 2-ES-14, SS-3, S-7'Project PJKS (Denver)

Date Collected _____

Client No. _____

Date Received 1/2/86

Laboratory Supervisor Approval: _____

Date Analyzed 1/7/86QC Report No. 56528-8Sample Matrix: 0☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1012Client U.S. Air ForceField Sample No. 2-ES-14, SS-4, 9-11Project FJKS (Denver)

Date Collected _____

Client No. _____

Date Received 1/2/86

Laboratory Supervisor Approval:

Date Analyzed 1/7/86Johnny R. AdamsOC Report No. 56528-8

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 1-56-1013Client U.S. Air ForceField Sample No. 2-ES-14, SS-5, 14-16'Project PJKS (Denver)

Date Collected _____

Client No. _____

Date Received 1/2/86

Laboratory Supervisor Approval: _____

Date Analyzed 1/7/86Johnny R. AdamsonQC Report No. 56528-8

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL, RESULTS SUMMARY Environmental Quality Parameters

Page 1 of 1
Report

Client USAF

Project P-TKS

Client No.

Date Collected 12-19-85

Date Received 12-20-85

Sample Matrix:

[illegible]

1X/ Soil ($\mu\text{g/g}$) ($\mu\text{g/kg}$)

/ / Other

CC Report No.

Laboratory Supervisor Approval:

John
Dilution Factor

Moisture

[illegible]

11/11/55	31155A	11/11/55	31155A
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ANALYTICAL RESULTS SUMMARY

Page 1 of 1
Report

QC Report No. _____
Laboratory Supervisor Approval: Johann R. Adanese
Dilution Factor _____
Moisture _____

/ /	Water (ug/L)
/ /	Soil (ug/g)
/ /	Other

Field Sample No.	Lab Sample No.	NO ₂	NO ₃	Ammonia	TKN				Notes
PTKS, 2-ES-1155-10-25	61-86-1001	0.373	9	<0.5	200				
PTKS, 2-ES-1155-2-24-ES	61-86-1002	0.343	<1	<0.5	210				
PTKS, 2-ES-1155-5-27-ES	1003	1.01	5.74	<0.5	400				
PTKS, 2-ES-1155-4-8-70-ES	1004	0.858	2.84	<0.5	320				
PTKS, 2-ES-1155-5-13-51-ES	✓ 1005	0.27	4.74	<0.5	90				
Date Analyzed	M D	2 6	2 12+13	1 15	1 30				
Analytical Method		21113554	EPA 352.1	EPA 40.1	EPA 351.3				

* If moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL, RESULTS SUMMARY

CC Report No.

Sample Matrix:

/ /	Water (ug/L)
/ /	Soil (ug/g)
/ /	Other

Laboratory Supervisor Approval:

Dilution Factor

Moisture

[illegible]

* If moisture is reported, results are presented on a dry-weight basis.

Note A: Best estimated value for nitrate.

ES Job No. 56528
Client NSAF
Project PTKS Denver
Client No. _____
Date Collected 1-1-86
Date Received 1-2-86

U. S. Report No. _____
Laboratory & Supervision Approval:
Johnny R. Adames
Dilution Factor _____
Moisture _____

Sample Matrix:

<u> / / </u>	Water (ug/l.)
<u> / / </u>	Soil (ug/g)
<u> / / </u>	Other

[illegible]

* If moisture is reported, results are presented on a dry-weight basis.

Note A: Best estimated value for nitrate.

ANALYTICAL, RESULTS SUMMARY

ES Job No. 56528
Client WSAF
Project PTKS - Denver
Client No. _____
Date Collected 1-1-86
Date Received 1-2-86

IX: Report No.

Laboratory Supervisor Approval: _____

Sample Matrix:

/ / Water (ug/L)

/✓ Soil (ug/g) (ug/kg)

/ / other

Field Sample No.	Lab Sample No.	NO _x	NO ₃	Phenolics	TKN					Notes
PJKS, 2-ES-1385-10-2 ES	01-86-106	0.17	7.0	<0.5	306					
PJKS, 2-ES-1385-12-4 ES	01-86-1007	0.082	2.5	<0.5	150					
PJKS, 2-ES-1385-35-9 ES	01-86-1008	0.13	2.2	<0.5	40					
Date Analyzed	M D	2 / 6	2 / 13	1 / 15	1 / 31					
Analytical Method		EPA 354.1	EPA 352.1	EPA 420.1	EPA 351.3					

* If a moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client USAF
Project PYKS Denver
Client No. _____
Date Collected 1-1-86
Date Received 1-2-86

QC Report No. _____
Laboratory Supervisor Approval: Johnny P. Adams
Dilution Factor _____
Moisture _____

Sample Matrix:

/ /	Water (ug/l.)
/ <input checked="" type="checkbox"/> /	Soil (ug/g) (ug/kg)
/ /	Other

Field Sample No.	Lab Sample No.	N _O _x	NO ₃	pHendie	TKN						Dates
PJKS, 2-ES-11 SS-10-2 ES	61-86-1001	0.373	9	<0.5	200						
PJKS, 2-ES-11 SS-2-2-4 ES	61-86-1002	0.343	<1	<0.5	210						
PJKS, 2-ES-11 SS-3-5-7 ES	1003	1.01	5.7A	<0.5	400						
PJKS, 2-ES-11 SS-4-8-10 ES	1004	0.858	2.8A	<0.5	320						
PJKS, 2-ES-11 SS-5-13-15 ES	✓ 1005	0.27	4.7A	<0.5	90						
Date Analyzed	M D	2 / 6	2 / 12 + 13	1 / 15	1 / 30						
Analytical Method		EPA 354.1	EPA 352.1	EPA 420.1	EPA 351.3						

* If a moisture is reported, results are presented on a dry-weight basis.

Results of Site 3
8010, 8020, Metals and Inorganic Parameters

ES Job No. 56528Lab Sample No. 1-86-1030Client U.S. Air ForceField Sample No. 3-ES-15, SS-1Project PJKS (Denver)Date Collected 1-2-86

Client No. _____

Date Received 1-3-86

Laboratory Supervisor Approval: _____

Date Analyzed 1/3/86Johnny R. AdamsQC Report No. PJKS-CS

Sample Matrix:

/ Water (ug/L)

Dilution Factor _____

/X Soil (ug/g)

*Moisture _____

/ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval:

Lab Sample No. 1-86-1C31
 Field Sample No. 3-ES-15, SS-2
 Date Collected 1-2-86
 Date Received 1-3-86
 Date Analyzed 1/8/86

Johnny R. Adamson
 Sample Matrix:

QC Report No. PJKS-C3

☐ / Water (ug/L)
☒ / Soil (ug/g)
☐ / Other _____

Dilution Factor _____
 *Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det	Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	.	4	<10		40.9	
bis(2-chloroethoxy) methane		12	<12		44.2	
bis(2-chloroisopropyl) ether		25	<25		42.2	
Bromobenzene		8	<10		29.18	
Bromodichloromethane		2	<10		15.69	
Bromoform		4	<10		21.24	
Bromomethane		24	<24		2.85	
Carbon tetrachloride		3	<10		15.47	
Chloroacetaldehyde		10	<10		11.6	
Chloral		10	<10		18.7	
Chlorobenzene		5	<10		26.01	
Chloroethane		10	<10		4.51	
Chloroform		1	<10		13.01	
1-Chlorohexane		2	<10		26.58	
2-Chloroethyl vinyl ether		3	<10		19.49	
Chloromethane		2	<10		1.95	
Chloromethyl methyl ether		20	<20		9.37	
Chlorotoluene		4	<10		37.9	
Dibromochloromethane		2	<10		18.68	

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1-86-1031

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1052Client U.S. Air ForceField Sample No. 3-ES-15, SS-3Project PJKS (Denver)Date Collected 1-9-86

Client No. _____

Date Received 1-10-86

Laboratory Supervisor Approval:

Date Analyzed 1/13/86Johnny R. AdamsQC Report No. PJKS-09

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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ANALYTICAL RESULTS SUMMARY
 Halogenated Volatile Organics
 SW Method 8010
 (second of two pages)

1-86-1082

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 1-86-1053
 Field Sample No. 3-ES-15, SS-4
 Date Collected 1-9-86
 Date Received 1-10-86
 Date Analyzed 1/13/86

Johnny R. Adams

QC Report No. PJKS-09

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 1-86-1084
Field Sample No. 3-ES-15, SS-5
Date Collected 1-9-86
Date Received 1-10-86
Date Analyzed 1/13/86QC Report No. PJKS-07

Sample Matrix: _____

☐ Water (ug/L)☒ Soil (ug/g)☐ Other _____

Dilution Factor _____

*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 1-86-1085
 Field Sample No. 3 ES-15, SS-6
 Date Collected 1-9-86
 Date Received 1-10-86
 Date Analyzed 1/13/86

Johnny R. Cidamson
 Sample Matrix: _____

QC Report No. PJKS-09

☐ Water (ug/L)
☒ Soil (ug/g)
☐ Other _____

Dilution Factor _____
 *Moisture _____ %

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	5	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 1-86-1032
 Field Sample No. 3-ES16, SS4
 Date Collected 1-2-86
 Date Received 1-3-86
 Date Analyzed 1/5/86

QC Report No. PJKS-CS

Johnny P. Adams
 Sample Matrix:

☐ Water (ug/L)
☒ Soil (ug/g)
☐ Other _____

Dilution Factor _____
 *Moisture _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration		Retention Time		Notes
	Det	Lim	Column 1	Column 2	
Dibromomethane	1		<10	13.09	
1,2-Dichlorobenzene	3		<10	60.10	
1,3-Dichlorobenzene	6		<10	42.90	
1,4-Dichlorobenzene	5		<10	37.28	
Dichlorodifluoromethane	30		<30	3.54	
1,1-Dichloroethane	1		<10	11.67	
1,2-Dichloroethane	1		<10	13.55	
1,1-Dichloroethylene	3		<10	10.31	
trans-1,2-Dichloroethylene	2		<10	12.35	
Dichloromethane	5		<10	7.50	
1,2-Dichloropropane	1		<10	17.19	
				17.24	
1,3-Dichloropropylene	6		<10	18.68	
1,1,2,2-Tetrachloroethane	7		<10	23.47	
1,1,1,2-Tetrachloroethane	7		<10	21.04	
Tetrachloroethylene	1		<10	23.47	
1,1,1-Trichloroethane	1		<10	14.76	
1,1,2-Trichloroethane	1		<10	18.68	
Trichloroethylene	2		<10	17.91	
Trichlorofluoromethane	1		<10	8.58	
Trichloropropane	2		<10	23.01	
Vinyl chloride	4		<10	3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 1-86-1033
 Field Sample No. 3-ES-16, SS-2
 Date Collected 1-7-86
 Date Received 1-3-86
 Date Analyzed 1/8/86

Johnny P. Coleman
 Sample Matrix: _____

QC Report No. PJKS-C8

☐ Water (ug/L)
☒ Soil (ug/g)
☐ Other _____

Dilution Factor _____
 *Moisture _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1034Client U.S. Air ForceField Sample No. 3-ES-16, SS-3Project PJKS (Denver)Date Collected 1-2-86

Client No. _____

Date Received 1-3-86

Laboratory Supervisor Approval: _____

Date Analyzed 1/9/86Johnny R. CichmanQC Report No. PJKS-69

Sample Matrix: _____

/ Water (ug/L)

Dilution Factor _____

/X Soil (ug/g)

*Moisture _____ %

/ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 1-86-1055
Field Sample No. 3-ES-16, SS-4
Date Collected 1-2-86
Date Received 1-3-86
Date Analyzed 1/9/86QC Report No. PJKS-08Johnny R. Cidman
Sample Matrix _____☐ Water (ug/L)
☒ Soil (ug/g)
☐ Other _____Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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1-86-1035

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. .
 Laboratory Supervisor Approval:

Lab Sample No. 1-86-1036
 Field Sample No. 3-ES-16, SS-5
 Date Collected 1-2-86
 Date Received 1-3-86
 Date Analyzed 1/9/86

Johnny R. Anderson

QC Report No. PJKS-08

Sample Matrix

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1037Client U.S. Air ForceField Sample No. 3-ES-16, SS-6Project PJKS (Denver)Date Collected 1-2-86

Client No. _____

Date Received 1-3-86

Laboratory Supervisor Approval: _____

Date Analyzed 1/9/86Johnny R. ColemanQC Report No. PJKS-CS

Sample Matrix

/ Water (ug/L)

Dilution Factor _____

/X Soil (ug/g)

*Moisture _____ %

/ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

continued on back

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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	10	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Lab Sample No. 1-86-1030
Field Sample No. 3-ES-15, SS-1,0-2'
Date Collected 1/2/86
Date Received 1/3/86
Date Analyzed 1/8/86Johnny R. Adamson
Sample Matrix: QC Report No. 56528-8 / Water (ug/L) / X Soil (ug/g) / Other Dilution Factor *Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Lab Sample No. 1-86-1031
Field Sample No. 3-ES-15,SS-2,2-4'
Date Collected 1/2/86
Date Received 1/3/86
Date Analyzed 1/8/86Johnny R. Adamson
Sample Matrix:☐ Water (ug/L)☒ Soil (ug/g)☐ Other QC Report No. 56528-8Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 1-86-1082Client U.S. Air ForceField Sample No. 3-ES-15, SS-3, 5-7'Project FJKS (Denver)Date Collected 1/9/86

Client No. _____

Date Received 1/10/86

Laboratory Supervisor Approval:

Date Analyzed 1/13/86Johnny R. Adams
Sample Matrix:QC Report No. 56528-9☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1083Client U.S. Air ForceField Sample No. 3-ES-15, 35-4, 8-10Project PJKS (Denver)Date-Collected 1/9/86

Client No. _____

Date Received 1/10/86

Laboratory Supervisor Approval:

Date Analyzed 1/13/86Johnny R. AdamsQC Report No. 56528-9

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
				15.26		
				16.91		
Xylenes (Dimethyl benzene)	.4	<10		17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 1-86-1084
Field Sample No. 3-ES-15, SS-5, 11.5-13
Date Collected 1/9/86
Date Received 1/10/86
Date Analyzed 1/13/86Johnny P. Adams
Sample Matrix: _____QC Report No. 56528-9☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If * moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 1-86-1085Client U.S. Air ForceField Sample No. 3-ES-15, SS-6, 13.4-15,Project PJKS (Denver)Date Collected 1/9/86

Client No. _____

Date Received 1/10/86

Laboratory Supervisor Approval:

Date Analyzed 1/13/86Johnny R. AdamsonQC Report No. 56528-9

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 1-86-1032Client U.S. Air ForceField Sample No. 3-ES-16 SS-1, 6-2'Project PJKS (Denver)Date Collected 1/2/86

Client No. _____

Date Received 1/3/86

Laboratory Supervisor Approval: _____

Date Analyzed 1/8/86Johnny R. Adams
Sample MatrixQC Report No. 56528-8☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Lab Sample No. 1-86-1033
Field Sample No. 3-ES-16 SS-2, 2-4
Date Collected 1/2/86
Date Received 1/3/86
Date Analyzed 1/8/86Johnny R. Adams
Sample Matrix: / / Water (ug/L) / / Soil (ug/g) / / Other QC Report No. 56528-8Dilution Factor *Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 1-86-1034
Field Sample No. 3-ES-16 SS-3, 5-7'
Date Collected 1/2/86
Date Received 1/3/86
Date Analyzed 1/9/86Johnny P. Adams
Sample Matrix: _____QC Report No. 56528-8☐ Water (ug/L)☒ Soil (ug/g)☐ Other _____

Dilution Factor _____

*Moisture _____ %

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1035Client U.S. Air ForceField Sample No. 3-ES-16, SS-4, 8-10Project PJKS (Denver)Date Collected 1/2/86Client No. Date Received 1/3/86Laboratory Supervisor Approval: Date Analyzed 1/9/86Johnny R. Adams
Sample Matrix: QC Report No. 56528-8 / / Water (ug/L)Dilution Factor / / Soil (ug/g)*Moisture % / / Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

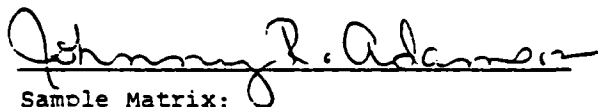
Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 1-86-1036Client U.S. Air ForceField Sample No. 8-ES-16, SS-5, 11-12'Project PJKS (Denver)Date Collected 1/2/86

Client No. _____

Date Received 1/3/86

Laboratory Supervisor Approval: _____

Date Analyzed 1/9/86QC Report No. 56528-8

Sample Matrix: _____

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	.4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	.6	<10		22.51	
Ethyl benzene	.4	<10		7.18	
Toluene	.4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

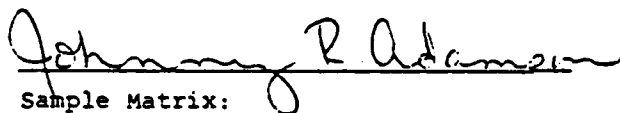
Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 6 of 1
Report _____ES Job No. 56528Lab Sample No. 1-86-1C37Client U.S. Air ForceField Sample No. 3-ES-1C, SS-6, 14-15Project FJKS (Denver)Date Collected 1/2/86

Client No. _____

Date Received 1/3/86

Laboratory Supervisor Approval: _____

Date Analyzed 1/9/86QC Report No. 56528-8

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Client USAFProject PJKS Plant

Client No. _____

Date Collected 1/2/86Date Received 1/3/86

QC Report No. _____

Laboratory Supervisor Approval:

John R. Adams

Dilution Factor _____

*Moisture _____

Sample Matrix:

☐ Water (ug/L)☒ Soil (ug/g) (ug/Kg)☐ Other

Field Sample No.	Lab Sample No.	C _r									Notes
PJKS, 3-ES-15, SS1, 0-2'	01-86-1030	<0.17									
↓ SS2, 2-4'	1031	<0.17									
PJKS, 3-ES-16, SS1, 0-2'	1032	<0.17									
↓ SS2, 2-4'	1033	0.43									
SS3, 5-7'	1034	<0.17									
SS4, 8-10'	1035	<0.17									
SS5, 11-12'	1036	<0.17									
↓ SS-6, 14-15'	1037	<0.17									
PJKS, 3-ES-15, SS-3, 5-7'	01-86-1082	<0.17									
↓ SS-4, 8-10'	1083	<0.17									
SS-5, 15-16'	1084	<0.17									
↓ SS-6, 18-19'	1085	<0.17									
Date Analyzed	M D	1 12									
Analytical Method		EPA 7194									

* If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY

page 1 of
Report

QC Report No.

Laboratory Supervisor Approval:

John

/ / Water (ug/L)

Soil (uq/a) (uq/Kq)

Moisture

* If moisture is reported, results are presented on a dry-weight basis.

Results for Site 7
8010, 8020, Metals and Inorganic Parameters

ES Job No. 56528Lab Sample No. 12-55-1197Client U.S. Air ForceField Sample No. 7-1, SD-1Project PJKS (Denver)Date Collected 12-19-85

Client No. _____

Date Received 12-20-85

Laboratory Supervisor Approval: _____

Date Analyzed 1/2/86Johnny R. Adams
Sample Matrix: _____QC Report No. PJKS-C5/ Water (ug/L)

Dilution Factor _____

/X Soil (ug/g)

*Moisture _____ %

/ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	1	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	.3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	.5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	.1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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12-85-1197

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	.6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	.6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	.1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 12-85-1198
 Field Sample No. 7-2, SD-1
 Date Collected 12-19-85
 Date Received 12-20-85
 Date Analyzed 1/2/86

Johnny R. Adams
 Sample Matrix: _____

QC Report No. PJKS-05

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

continued on back

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 12-55-1199
 Field Sample No. 7-3, SD-1
 Date Collected 12-19-85
 Date Received 12-20-85
 Date Analyzed 1/2/86

Johnny R. Adamson
 Sample Matrix: _____

QC Report No. FJKS-C5

/ / Water (ug/L)

Dilution Factor _____

/X / Soil (ug/g)

*Moisture _____

/ / Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

continued on back

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	.1	<10		13.09		
1,2-Dichlorobenzene	.3	<10		60.10		
1,3-Dichlorobenzene	.6	<10		42.90		
1,4-Dichlorobenzene	.5	<10		37.28		
Dichlorodifluoromethane	.30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1200Client U.S. Air ForceField Sample No. 7-4, SD-1Project PJKS (Denver)Date Collected 12-19-85

Client No. _____

Date Received 12-20-85

Laboratory Supervisor Approval: _____

Date Analyzed 1/2/86Johnny R. Adams
Sample Matrix:☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	3	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

continued on back

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 12-85-1201
 Field Sample No. 7-5, SD-1
 Date Collected 12-19-85
 Date Received 12-20-85
 Date Analyzed 1/2/86

Johnny R. Adamson
 Sample Matrix _____

QC Report No. PJKS-66

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
bis(2-chloroethoxy) methane	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	<25		42.2	
Bromobenzene	9	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	<20		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

continued on back

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	.3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	.5	<10		37.28		
Dichlorodifluoromethane	.30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	.3	<10		10.31		
trans-1,2-Dichloroethylene	.2	<10		12.35		
Dichloromethane	.5	<10		7.50		
1,2-Dichloropropane	.1	<10		17.19		
				17.24		
1,3-Dichloropropylene	.6	<10		18.68		
1,1,2,2-Tetrachloroethane	.7	<10		23.47		
1,1,1,2-Tetrachloroethane	.7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	.4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1201Client U.S. Air ForceField Sample No. 7-6, SD-1Project PJKS (Denver)Date Collected 12-19-85

Client No. _____

Date Received 12-20-85

Laboratory Supervisor Approval: _____

Date Analyzed 1/2/86Johnny R. AdamsQC Report No. PJKS-06

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

continued on back

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	5	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1203Client U.S. Air ForceField Sample No. 7-7, SD-1Project PJKS (Denver)Date Collected 12-19-85

Client No. _____

Date Received 12-20-85

Laboratory Supervisor Approval: _____

Date Analyzed 1/2/86Johnny R. Adams
Sample Matrix: _____QC Report No. PJKS-06☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

continued on back

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1204
Field Sample No. 7-8, SD-1
Date Collected 12-19-85
Date Received 12-20-85
Date Analyzed 1/2/86Johnny R. Adamson
Sample Matrix: _____QC Report No. PJKS-CL☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	.25	<25		42.2		
Bromobenzene	3	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	.1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	.3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

continued on back

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1205Client U.S. Air ForceField Sample No. 7-9, SD-1Project PJKS (Denver)Date Collected 12-19-85

Client No. _____

Date Received 12-20-85

Laboratory Supervisor Approval: _____

Date Analyzed 1/2/86Johnny R. Adams
Sample Matrix: _____QC Report No. PJKS-06☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	3	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<10		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	.1	<10		13.09		
1,2-Dichlorobenzene	.3	<10		60.10		
1,3-Dichlorobenzene	.6	<10		42.90		
1,4-Dichlorobenzene	.5	<10		37.28		
Dichlorodifluoromethane	.30	<10		3.54		
1,1-Dichloroethane	.1	<10		11.67		
1,2-Dichloroethane	.1	<10		13.55		
1,1-Dichloroethylene	.3	<10		10.31		
trans-1,2-Dichloroethylene	.2	<10		12.35		
Dichloromethane	.5	<10		7.50		
1,2-Dichloropropane	.1	<10		17.19		
				17.24		
1,3-Dichloropropylene	.5	<10		18.68		
1,1,2,2-Tetrachloroethane	.7	<10		23.47		
1,1,1,2-Tetrachloroethane	.7	<10		21.04		
Tetrachloroethylene	.1	<10		23.47		
1,1,1-Trichloroethane	.1	<10		14.76		
1,1,2-Trichloroethane	.1	<10		18.68		
Trichloroethylene	.2	<10		17.91		
Trichlorofluoromethane	.1	<10		8.58		
Trichloropropane	.2	<10		23.01		
Vinyl chloride	.4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 12-85-1197Client U.S. Air ForceField Sample No. 7-1, SD-1, ESProject PJKS (Denver)Date Collected 12/19/85

Client No. _____

Date Received 12/20/85

Laboratory Supervisor Approval: _____

Date Analyzed 1/2/86Johnny R. AdamsanQC Report No. 56528-5

Sample Matrix _____

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1198
Field Sample No. 7-2, SD-1, ES
Date Collected 12/19/85
Date Received 12/20/85
Date Analyzed 1/2/86Johnny R. Adams
Sample Matrix: _____QC Report No. 56528-5☐ / Water (ug/L)

Dilution Factor _____

☒ / Soil (ug/g)

*Moisture _____

☐ / Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 12-85-1199Client U.S. Air ForceField Sample No. 7-3, SD-1, ESProject PJKS (Denver)Date Collected 12/19/85

Client No. _____

Date Received 12/20/85

Laboratory Supervisor Approval: _____

Date Analyzed 1/2/86Johnny R. Adamson
Sample MatrixQC Report No. 56528-5☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1200Client U.S. Air ForceField Sample No. 7-4, SD-1, ESProject PJKS (Denver)Date Collected 12/19/85

Client No. _____

Date Received 12/20/85

Laboratory Supervisor Approval: _____

Date Analyzed 1/2/86Johnny R. Adams
Sample Matrix: _____QC Report No. 56528-5☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 12-85-1201Client U.S. Air ForceField Sample No. 7-552-1, ESProject PJKS (Denver)Date Collected 12/19/85

Client No. _____

Date Received 12/20/85

Laboratory Supervisor Approval: _____

Date Analyzed 1/2/86Johnny R. Adams
Sample MatrixQC Report No. 56528-6☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 12-85-1202Client U.S. Air ForceField Sample No. 7-6, SD-1, ESProject PJKS (Denver)

Date Collected _____

Client No. _____

Date Received 12/20/85

Laboratory Supervisor Approval: _____

Date Analyzed 1/2/86Johnny R. AdamsQC Report No. 56528-6

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 12-85-1203Client U.S. Air ForceField Sample No. 7-7, SD-1, ESProject PJKS (Denver)Date Collected 12/19/85

Client No. _____

Date Received 12/20/85

Laboratory Supervisor Approval: _____

Date Analyzed 1/2/86Johnny R. Adams

QC Report No. _____

Sample Matrix:

☐ Water (ug/L)Dilution Factor 56528-6☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 12-85-1204Client U.S. Air ForceField Sample No. 7-8-SD-1, ESProject PJKS (Denver)Date Collected 12/19/85

Client No. _____

Date Received 12/20/85

Laboratory Supervisor Approval: _____

Date Analyzed 1/2/86Johnny R. AdamsonQC Report No. 56528-6

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If * moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1205
Field Sample No. 7-9, SD-1, ES
Date Collected 12/19/85
Date Received 12/20/85
Date Analyzed 1/2/86Johnny R. Adams
Sample Matrix _____QC Report No. 56528-6☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

QC Report No. _____
Laboratory Supervisor Approval: Johnny R. Adams
Dilution Factor _____
Moisture _____

• If \ moisture is reported, results are presented on a dry-weight basis.

US9111

Date Received 12-20-85

Client No.

Moisture

1X/	other	Sediments (14/9)
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* If moisture is reported, results are presented on a dry-weight basis.

US9,111

ANALYTICAL RESULTS SUMMARY

Engineering-Science

ES Job No. 56528
 Client US AF
 Project PTKS Denver
 Client No. _____
 Date Collected 12/19-85
 Date Received 12/20-85

QC Report No. _____
Laboratory Supervisor Approval: Johnny R. Adamsen
Dilution Factor _____
Moisture _____

Sample Matrix:

<input checked="" type="checkbox"/>	Water (ug/L)
<input checked="" type="checkbox"/>	Soil (ug/g) (ug/kg)
<input checked="" type="checkbox"/>	Other Sediments (ug/g)

Field Sample No.	Lab Sample No.	NO ₂	NO ₃	Phenolics	TKN	C _D	Notes
PJKS, 7-1, SD-1, ES	12-85-1197	0.08	7	<0.5	140	0.40	
PJKS, 7-2, SD-1, ES	1198	0.08	2	<0.5	140	<0.17	
PJKS, 7-3, SD-1, ES	1199	0.08	<1	<0.5	430	<0.17	A
PJKS, 7-4, SD-1, ES	1200	0.08	30	<0.5	570	0.86	
PJKS, 7-5, SD-1, ES	1201	0.28	6.1	<0.5	650	<0.17	
PJKS, 7-6, SD-1, ES	✓ 1202	0.08	5.3	<0.5	140	<0.17	
Date Analyzed	M D	1 / 23	2 / 11	1 / 14	1 / 30	12 / 30	
Analytical Method		EPA 354.1	EPA 350.1	EPA 420.1	EPA 351.3	EPA 719.6	

* If moisture is reported, results are presented on a dry-weight basis.

NOTE A: The reported value of nitrate is best estimated value of four (4) analyses results. OK

Results for Site 11 along Brush Creek
601, 602, 625, Metals and Inorganic Parameters

ES Job No. 56528Lab Sample No. 3-86-1271Client U.S. AIR FORCEField Sample No. 11-0, SW-1Project PJKS (DENVER)Date Collected 3/26

Client No. _____

Date Received 3/27

Laboratory Supervisor Approval:

Date Analyzed 3/27/86Johnny P. AdamsonQC Report No. 56528-30

Sample Matrix:

☒ /X/ Water (ug/L)

Dilution Factor _____

☐ / Soil (ug/g) (ug/Kg)

*Moisture _____

☐ / Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Bromodichloromethane	0.10	<10		15.69	
Bromoform	0.20	<10		21.24	
Bromomethane	1.18	<10		2.85	
Carbon tetrachloride	0.12	<4.0		15.47	
Chlorobenzene	0.25	<10		26.01	
Chloroethane	0.52	<10		4.51	
2-Chloroethylvinyl ether	0.13	<10		19.49	
Chloroform	0.05	<10		13.01	
Chloromethane	0.08	<10		1.95	
Dibromochloromethane	0.09	<10		18.68	
1,2-Dichlorobenzene	0.15	<10		60.1	
1,3-Dichlorobenzene	0.32	<10		42.9	
1,4-Dichlorobenzene	0.24	<10		37.3	
Dichlorodifluoromethane	1.81	<10		3.54	
1,1-Dichloroethane	0.07	<10		11.67	
1,2-Dichloroethane	0.03	<0.1		13.55	
1,1-Dichloroethene	0.13	<10		10.31	
trans-1,2-Dichloroethene	0.10	<10		12.35	
1,2-Dichloropropane	0.08	<10		17.19	
cis-1,3-Dichloropropene	0.20	<10		18.68	
trans-1,3-Dichloropropene	0.10	<10		17.24	
Methylene chloride	0.25	<4.0		7.50	
1,1,2,2-Tetrachloroethane	0.03	<10		23.47	
Tetrachloroethene	0.03	<4.0		23.47	
1,1,1-Trichloroethane	0.03	<10		14.76	
1,1,2-Trichloroethane	0.02	<10		18.68	
Trichloroethene	0.12	<1.0		17.91	
Trichlorofluoromethane	0.01	<10		8.58	
Vinyl chloride	0.18	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 3-86-1270Client U.S. Air ForceField Sample No. 11-1, SW-3Project PJKS (Denver)Date Collected 3/26

Client No. _____

Date Received 3/27

Laboratory Supervisor Approval: _____

Date Analyzed 3/27 & 3/28/86Johnny R. AdamsonQC Report No. 56528-30

Sample Matrix:

☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	33.6	<10	12.35	8.00	
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	2.04	3.38	17.91	10.41	
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	55.2	<10	3.54	3.25	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 3-86-1269Client U.S. Air ForceField Sample No. 11-2, SW-3Project PJKS (Denver)Date Collected 3/26

Client No. _____

Date Received 3/27

Laboratory Supervisor Approval: _____

Date Analyzed 3/27/86Johnny R. AdamsonQC Report No. 56528-30

Sample Matrix:

☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<1.0		17.91		
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 3-86-1268Client U.S. Air ForceField Sample No. 11-3, SW-2Project PJKS (Denver)Date Collected 3/26

Client No. _____

Date Received 3/27

Laboratory Supervisor Approval:

Date Analyzed 3/31/86Johnny R. AdamsonQC Report No. 56528-30

Sample Matrix:

☒ /X/ Water (ug/L)

Dilution Factor _____

☐ / / Soil (ug/g) (ug/Kg)

*Moisture _____

☐ / / Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Bromodichloromethane	0.10	<10		15.69	
Bromoform	0.20	<10		21.24	
Bromomethane	1.18	<10		2.85	
Carbon tetrachloride	0.12	<4.0		15.47	
Chlorobenzene	0.25	<10		26.01	
Chloroethane	0.52	<10		4.51	
2-Chloroethylvinyl ether	0.13	<10		19.49	
Chloroform	0.05	<10		13.01	
Chloromethane	0.08	<10		1.95	
Dibromochloromethane	0.09	<10		18.68	
1,2-Dichlorobenzene	0.15	<10		60.1	
1,3-Dichlorobenzene	0.32	<10		42.9	
1,4-Dichlorobenzene	0.24	<10		37.3	
Dichlorodifluoromethane	1.81	<10		3.54	
1,1-Dichloroethane	0.07	<10		11.67	
1,2-Dichloroethane	0.03	<0.1		13.55	
1,1-Dichloroethene	0.13	<10		10.31	
trans-1,2-Dichloroethene	0.10	<10		12.35	
1,2-Dichloropropane	0.08	<10		17.19	
cis-1,3-Dichloropropene	0.20	<10		18.68	
trans-1,3-Dichloropropene	0.10	<10		17.24	
Methylene chloride	0.25	<4.0		7.50	
1,1,2,2-Tetrachloroethane	0.03	<10		23.47	
Tetrachloroethene	0.03	<4.0		23.47	
1,1,1-Trichloroethane	0.03	<10		14.76	
1,1,2-Trichloroethane	0.02	<10		18.68	
Trichloroethene	0.12	<1.0		17.91	
Trichlorofluoromethane	0.01	<10		8.58	
Vinyl chloride	0.18	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 3-86-1267
Field Sample No. 11-4, SW-2
Date Collected 3/26
Date Received 3/27
Date Analyzed 3/27/86

Johnny R. Adams
Sample Matrix:

QC Report No. 56528-30

☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<1.0		17.91		
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 3-86-1265Client U.S. Air ForceField Sample No. 11-5, SW-3Project PJKS (Denver)Date Collected 3/26

Client No. _____

Date Received 3/27

Laboratory Supervisor Approval: _____

Date Analyzed 3/31/86Johnny R. AdamsQC Report No. 56528-30

Sample Matrix:

☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<1.0		17.91		
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 3-86-1266Client U.S. Air ForceField Sample No. 11-5, SW-4Project PJKS (Denver)Date Collected 3/26

Client No. _____

Date Received 3/27

Laboratory Supervisor Approval: _____

Date Analyzed 3/31/86Johnny R. AdamsonQC Report No. 56528-30

Sample Matrix:

☒ /X/ Water (ug/L)

Dilution Factor _____

☐ / / Soil (ug/g) (ug/Kg)

*Moisture _____

☐ / / Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<1.0		17.91		
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 3-86-1264Client U.S. Air ForceField Sample No. 11-6, SW-2Project PJKS (Denver)Date Collected 3/26

Client No. _____

Date Received 3/27

Laboratory Supervisor Approval:

Date Analyzed 3/31/86Johnny R. Adams
Sample Matrix:QC Report No. 56528-30☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Bromodichloromethane	0.10	<10		15.69	
Bromoform	0.20	<10		21.24	
Bromomethane	1.18	<10		2.85	
Carbon tetrachloride	0.12	<4.0		15.47	
Chlorobenzene	0.25	<10		26.01	
Chloroethane	0.52	<10		4.51	
2-Chloroethylvinyl ether	0.13	<10		19.49	
Chloroform	0.05	<10		13.01	
Chloromethane	0.08	<10		1.95	
Dibromochloromethane	0.09	<10		18.68	
1,2-Dichlorobenzene	0.15	<10		60.1	
1,3-Dichlorobenzene	0.32	<10		42.9	
1,4-Dichlorobenzene	0.24	<10		37.3	
Dichlorodifluoromethane	1.81	<10		3.54	
1,1-Dichloroethane	0.07	<10		11.67	
1,2-Dichloroethane	0.03	<0.1		13.55	
1,1-Dichloroethene	0.13	<10		10.31	
trans-1,2-Dichloroethene	0.10	<10		12.35	
1,2-Dichloropropane	0.08	<10		17.19	
cis-1,3-Dichloropropene	0.20	<10		18.68	
trans-1,3-Dichloropropene	0.10	<10		17.24	
Methylene chloride	0.25	<4.0		7.50	
1,1,2,2-Tetrachloroethane	0.03	<10		23.47	
Tetrachloroethene	0.03	<4.0		23.47	
1,1,1-Trichloroethane	0.03	<10		14.76	
1,1,2-Trichloroethane	0.02	<10		18.68	
Trichloroethene	0.12	<1.0		17.91	
Trichlorofluoromethane	0.01	<10		8.58	
Vinyl chloride	0.18	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 3-86-1263Client U.S. Air ForceField Sample No. 11-7, SW-2Project PJKS (Denver)Date Collected 3/26

Client No. _____

Date Received 3/27

Laboratory Supervisor Approval: _____

Date Analyzed 3/27 & 4/1/86Johnny R. AdamsQC Report No. 56528-30

Sample Matrix:

☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	5.48	3.16	17.91	10.42	
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

Purgeable Halocarbons

EPA Method 601

ES Job No. 56528Lab Sample No. 3/86-1262Client U.S. Air ForceField Sample No. 11-8, SW-2Project PJKS (Denver)Date Collected 3/26Client No. Date Received 3/27Laboratory Supervisor Approval: Date Analyzed 3/31/86 & 4/1/86Johnny R. AdamsonQC Report No. 56528-30

Sample Matrix:

☒ Water (ug/L)Dilution Factor ☐ Soil (ug/g) (ug/Kg)*Moisture ☐ Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Bromodichloromethane	0.10	<10		15.69	
Bromoform	0.20	<10		21.24	
Bromomethane	1.18	<10		2.85	
Carbon tetrachloride	0.12	<4.0		15.47	
Chlorobenzene	0.25	<10		26.01	
Chloroethane	0.52	<10		4.51	
2-Chloroethylvinyl ether	0.13	<10		19.49	
Chloroform	0.05	<10		13.01	
Chloromethane	0.08	<10		1.95	
Dibromochloromethane	0.09	<10		18.68	
1,2-Dichlorobenzene	0.15	<10		60.1	
1,3-Dichlorobenzene	0.32	<10		42.9	
1,4-Dichlorobenzene	0.24	<10		37.3	
Dichlorodifluoromethane	1.81	<10		3.54	
1,1-Dichloroethane	0.07	<10		11.67	
1,2-Dichloroethane	0.03	<0.1		13.55	
1,1-Dichloroethene	0.13	<10		10.31	
trans-1,2-Dichloroethene	0.10	<10		12.35	
1,2-Dichloropropane	0.08	<10		17.19	
cis-1,3-Dichloropropene	0.20	<10		18.68	
trans-1,3-Dichloropropene	0.10	<10		17.24	
Methylene chloride	0.25	<4.0		7.50	
1,1,2,2-Tetrachloroethane	0.03	<10		23.47	
Tetrachloroethene	0.03	<4.0		23.47	
1,1,1-Trichloroethane	0.03	<10		14.76	
1,1,2-Trichloroethane	0.02	<10		18.68	
Trichloroethene	0.12	1.67	4.11	17.91	10.42
Trichlorofluoromethane	0.01	<10		8.58	
Vinyl chloride	0.18	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

Purgeable Halocarbons

Report _____

EPA Method 601

ES Job No. 56528Lab Sample No. 3-86-1261Client U.S. Air ForceField Sample No. 11-4, SW-2Project PJKS (Denver)Date Collected 3/26

Client No. _____

Date Received 3/27

Laboratory Supervisor Approval: _____

Date Analyzed 3/31 & 4/1/86Johnny R. AdamsQC Report No. 56528-30

Sample Matrix:

☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Bromodichloromethane	0.10	<10		15.69	
Bromoform	0.20	<10		21.24	
Bromomethane	1.18	<10		2.85	
Carbon tetrachloride	0.12	<4.0		15.47	
Chlorobenzene	0.25	<10		26.01	
Chloroethane	0.52	<10		4.51	
2-Chloroethylvinyl ether	0.13	<10		19.49	
Chloroform	0.05	<10		13.01	
Chloromethane	0.08	<10		1.95	
Dibromochloromethane	0.09	<10		18.68	
1,2-Dichlorobenzene	0.15	<10		60.1	
1,3-Dichlorobenzene	0.32	<10		42.9	
1,4-Dichlorobenzene	0.24	<10		37.3	
Dichlorodifluoromethane	1.81	<10		3.54	
1,1-Dichloroethane	0.07	<10		11.67	
1,2-Dichloroethane	0.03	<0.1		13.55	
1,1-Dichloroethene	0.13	<10		10.31	
trans-1,2-Dichloroethene	0.10	<10		12.35	
1,2-Dichloropropane	0.08	<10		17.19	
cis-1,3-Dichloropropene	0.20	<10		18.68	
trans-1,3-Dichloropropene	0.10	<10		17.24	
Methylene chloride	0.25	<4.0		7.50	
1,1,2,2-Tetrachloroethane	0.03	<10		23.47	
Tetrachloroethene	0.03	<4.0		23.47	
1,1,1-Trichloroethane	0.03	<10		14.76	
1,1,2-Trichloroethane	0.02	<10		18.68	
Trichloroethene	0.12	1.27	3.39	17.91	10.42
Trichlorofluoromethane	0.01	<10		8.58	
Vinyl chloride	0.18	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 3-86-1260Client U.S. Air ForceField Sample No. 11-10, SW-2Project PJKS (Denver)Date Collected 3/26/86Client No. Date Received 3/27/86

Laboratory Supervisor Approval:

Date Analyzed 3/31 & 4/1/86Johnny P. AdamsQC Report No. 56528-30

Sample Matrix:

☒ Water (ug/L)Dilution Factor ☐ Soil (ug/g) (ug/Kg)*Moisture %☐ Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Bromodichloromethane	0.10	<10		15.69	
Bromoform	0.20	<10		21.24	
Bromomethane	1.18	<10		2.85	
Carbon tetrachloride	0.12	<4.0		15.47	
Chlorobenzene	0.25	<10		26.01	
Chloroethane	0.52	<10		4.51	
2-Chloroethylvinyl ether	0.13	<10		19.49	
Chloroform	0.05	<10		13.01	
Chloromethane	0.08	<10		1.95	
Dibromochloromethane	0.09	<10		18.68	
1,2-Dichlorobenzene	0.15	<10		60.1	
1,3-Dichlorobenzene	0.32	<10		42.9	
1,4-Dichlorobenzene	0.24	<10		37.3	
Dichlorodifluoromethane	1.81	<10		3.54	
1,1-Dichloroethane	0.07	<10		11.67	
1,2-Dichloroethane	0.03	<0.1		13.55	
1,1-Dichloroethene	0.13	<10		10.31	
trans-1,2-Dichloroethene	0.10	<10		12.35	
1,2-Dichloropropane	0.08	<10		17.19	
cis-1,3-Dichloropropene	0.20	<10		18.68	
trans-1,3-Dichloropropene	0.10	<10		17.24	
Methylene chloride	0.25	<4.0		7.50	
1,1,2,2-Tetrachloroethane	0.03	<10		23.47	
Tetrachloroethene	0.03	<4.0		23.47	
1,1,1-Trichloroethane	0.03	<10		14.76	
1,1,2-Trichloroethane	0.02	<10		18.68	
Trichloroethene	0.12	2.20	6.55	17.91	10.12
Trichlorofluoromethane	0.01	<10		8.58	
Vinyl chloride	0.18	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 3-86-1271Client U.S. AIR FORCEField Sample No. 11-C, SW-1Project PJKS (DENVER)Date Collected 3/26Client No. Date Received 3/27Laboratory Supervisor Approval: Date Analyzed 3/27/86Johnny R. AdamsenQC Report No. 56528-31

Sample Matrix:

☒ Water (ug/L)Dilution Factor ☐ Soil (ug/g) (ug/Kg)*Moisture ☐ Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	0.2	<0.7		2.26	
Chlorobenzene	0.2	<10		16.46	
1,2-Dichlorobenzene	0.4	<10		20.44	
1,3-Dichlorobenzene	0.4	<10		17.26	
1,4-Dichlorobenzene	0.3	<10		16.56	
Ethylbenzene	0.2	<10		7.18	
Toluene	0.2	<10		5.47	

* If * moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 3-84-1269Client U.S. AIR FORCEField Sample No. 11-2, SW-3Project PJKS (DENVER)Date Collected 3/26

Client No. _____

Date Received 3/27

Laboratory Supervisor Approval: _____

Date Analyzed 3/27/86Johnny R. AdamsQC Report No. 56528-31

Sample Matrix:

☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____ %

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	0.2	<0.7		2.26	
Chlorobenzene	0.2	<10		16.46	
1,2-Dichlorobenzene	0.4	<10		20.44	
1,3-Dichlorobenzene	0.4	<10		17.26	
1,4-Dichlorobenzene	0.3	<10		16.56	
Ethylbenzene	0.2	<10		7.18	
Toluene	0.2	<10		5.47	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 3-86-1268Client U.S. AIR FORCEField Sample No. 11-3, SW1-2Project PJKS (DENVER)Date Collected 3/26

Client No. _____

Date Received 3/27

Laboratory Supervisor Approval:

Date Analyzed 3/31/86Johnny R. AdamsQC Report No. 56528-31

Sample Matrix:

☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	0.2	<0.7		2.26	
Chlorobenzene	0.2	<10		16.46	
1,2-Dichlorobenzene	0.4	<10		20.44	
1,3-Dichlorobenzene	0.4	<10		17.26	
1,4-Dichlorobenzene	0.3	<10		16.56	
Ethylbenzene	0.2	<10		7.18	
Toluene	0.2	<10		5.47	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 3-86-1267Client U.S. AIR FORCEField Sample No. 11-4, SW-2Project PJKS (DENVER)Date Collected 3/26

Client No. _____

Date Received 3/27

Laboratory Supervisor Approval: _____

Date Analyzed 3/27/86Johnny R. AdamsQC Report No. 56528-31

Sample Matrix:

☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		20.44		
1,3-Dichlorobenzene	0.4	<10		17.26		
1,4-Dichlorobenzene	0.3	<10		16.56		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 3-86-1266Client U.S. AIR FORCEField Sample No. 11-5, SW-4Project PJKS (DENVER)Date Collected 3/26

Client No. _____

Date Received 3/27

Laboratory Supervisor Approval: _____

Date Analyzed 3/31/86Johnny R. AdamsQC Report No. 56528-31

Sample Matrix:

☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		20.44		
1,3-Dichlorobenzene	0.4	<10		17.26		
1,4-Dichlorobenzene	0.3	<10		16.56		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 3-86-1265Client U.S. AIR FORCEField Sample No. 11-5, SW-3Project PJKS (DENVER)Date Collected 3/26

Client No. _____

Date Received 3/27

Laboratory Supervisor Approval: _____

Date Analyzed 3/31/86Johnny R. AdamsQC Report No. 56528-31

Sample Matrix: _____

☒ /X / Water (ug/L)

Dilution Factor _____

☐ / Soil (ug/g) (ug/Kg)

*Moisture _____

☐ / Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	0.2	<0.7		2.26	
Chlorobenzene	0.2	<10		16.46	
1,2-Dichlorobenzene	0.4	<10		20.44	
1,3-Dichlorobenzene	0.4	<10		17.26	
1,4-Dichlorobenzene	0.3	<10		16.56	
Ethylbenzene	0.2	<10		7.18	
Toluene	0.2	<10		5.47	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 3-86-1264Client U.S. AIR FORCEField Sample No. 11-6, SW-2Project PJKS (DENVER)Date Collected 3/26Client No. Date Received 3/27

Laboratory Supervisor Approval:

Date Analyzed 3/31/86Johnny R. AdamsQC Report No. 56528-31

Sample Matrix:

☒ Water (ug/L)Dilution Factor ☐ Soil (ug/g) (ug/Kg)*Moisture ☐ Other

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		20.44		
1,3-Dichlorobenzene	0.4	<10		17.26		
1,4-Dichlorobenzene	0.3	<10		16.56		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 3-86-1263Client U.S. AIR FORCEField Sample No. 11-7, SW-2Project PJKS (DENVER)Date Collected 3/26

Client No. _____

Date Received 3/27

Laboratory Supervisor Approval: _____

Date Analyzed 3/31 > 4/1/86Johnny R. AdamsQC Report No. 56528-31

Sample Matrix:

☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		20.44		
1,3-Dichlorobenzene	0.4	<10		17.26		
1,4-Dichlorobenzene	0.3	<10		16.56		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 3-86-1270Client U.S. AIR FORCEField Sample No. 11-7, SW-3Project PJKS (DENVER)Date Collected 3/26

Client No. _____

Date Received 3/27

Laboratory Supervisor Approval: _____

Date Analyzed 3/27 & 3/28/86Johnny R. AdamsenQC Report No. 56528-31

Sample Matrix:

☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	0.2	<0.7		2.26	
Chlorobenzene	0.2	<10		16.46	
1,2-Dichlorobenzene	0.4	<10		20.44	
1,3-Dichlorobenzene	0.4	<10		17.26	
1,4-Dichlorobenzene	0.3	<10		16.56	
Ethylbenzene	0.2	<10		7.18	
Toluene	0.2	<10		5.47	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 3-86-1262Client U.S. AIR FORCEField Sample No. 11-8, SW-2Project PJKS (DENVER)Date Collected 3/26

Client No. _____

Date Received 3/27

Laboratory Supervisor Approval: _____

Date Analyzed 3/31 & 4/1/86Johnny R. AdamsQC Report No. 56528-31

Sample Matrix:

☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		20.44		
1,3-Dichlorobenzene	0.4	<10		17.26		
1,4-Dichlorobenzene	0.3	<10		16.56		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 3-86-1261Client U.S. AIR FORCEField Sample No. 11-9, SW-2Project PJKS (DENVER)Date Collected 3/26Client No. Date Received 3/27

Laboratory Supervisor Approval:

Date Analyzed 3/31 & 4/1/86Johnny R. AdamsQC Report No. 56528-31

Sample Matrix:

☒ Water (ug/L)Dilution Factor ☐ Soil (ug/g) (ug/Kg)*Moisture ☐ Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	0.2	<0.7		2.26	
Chlorobenzene	0.2	<10		16.46	
1,2-Dichlorobenzene	0.4	<10		20.44	
1,3-Dichlorobenzene	0.4	<10		17.26	
1,4-Dichlorobenzene	0.3	<10		16.56	
Ethylbenzene	0.2	<10		7.18	
Toluene	0.2	<10		5.47	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 3-86-1260Client U.S. AIR FORCEField Sample No. 11-10, SW-2Project PJKS (DENVER)Date Collected 3/26

Client No. _____

Date Received 3/27

Laboratory Supervisor Approval: _____

Date Analyzed 3/31 & 4/1/86Johnny R. AdamsQC Report No. 56528-31

Sample Matrix:

☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	0.2	<0.7		2.26	
Chlorobenzene	0.2	<10		16.46	
1,2-Dichlorobenzene	0.4	<10		20.44	
1,3-Dichlorobenzene	0.4	<10		17.26	
1,4-Dichlorobenzene	0.3	<10		16.56	
Ethylbenzene	0.2	<10		7.18	
Toluene	0.2	<10		5.47	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1162Client U.S. Air ForceField Sample No. 11-1, SD-2Project PJKS (Denver)Date Collected 12-13-85

Client No. _____

Date Received 12-19-85

Laboratory Supervisor Approval: _____

Date Analyzed 1/1/86Johnny R. AdamsQC Report No. PJKS-04

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	.12	<12		44.2		
bis(2-chloroisopropyl) ether	.25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	.2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	.24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	.10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	.10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	.2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	.2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	.2	<10		18.68		

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<10		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1163
Field Sample No. 11-2, 50-2
Date Collected 12-18-85
Date Received 12-19-85
Date Analyzed 1/1/86Johnny R. Adamsen
Sample Matrix: _____QC Report No. PJKS-04☐ Water (ug/L)☒ Soil (ug/g)☐ Other _____

Dilution Factor _____

*Moisture _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	3	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	5	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1164Client U.S. Air ForceField Sample No. 11-3, SD-1Project PJKS (Denver)Date Collected 12-18-85

Client No. _____

Date Received 12-19-85

Laboratory Supervisor Approval:

Date Analyzed 1/1/86Johnny R. AdamsQC Report No. PJKS-C4

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	3	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	.1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	5	<10		42.90		
1,4-Dichlorobenzene	.5	<10		37.28		
Dichlorodifluoromethane	.30	<10		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	.3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	.5	<10		7.50		
1,2-Dichloropropane	.1	<10		17.19		
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	.1	<10		23.47		
1,1,1-Trichloroethane	.1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	.2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1165Client U.S. Air ForceField Sample No. 11-4, SD-1Project PJKS (Denver)Date Collected 12-18-85

Client No. _____

Date Received 12-19-85

Laboratory Supervisor Approval: _____

Date Analyzed 1/1/86Johnny R. AdamsonQC Report No. PJKS -C4

Sample Matrix: _____

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	.12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	.2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	.1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	.6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	.6	<10		18.68		
1,1,2,2-Tetrachloroethane	.7	<10		23.47		
1,1,1,2-Tetrachloroethane	.7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	.1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 12-85-1166
 Field Sample No. 11-5, SD-1
 Date Collected 12-18-85
 Date Received 12-19-85
 Date Analyzed 1/1/86

Johnny R. Adamson
 Sample Matrix: _____

QC Report No. PJKS-04

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1167Client U.S. Air ForceField Sample No. 11-5, SD-2Project PJKS (Denver)Date Collected 12-18-85

Client No. _____

Date Received 12-19-85

Laboratory Supervisor Approval: _____

Date Analyzed 1/1/86Johnny R. Adamson
Sample Matrix:QC Report No. PJKS-C4☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
 Halogenated Volatile Organics
 SW Method 8010
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12-85-1167

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	5	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	5	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 12-85-1165
 Field Sample No. 11-6, 50-1
 Date Collected 12-18-85
 Date Received 12-19-85
 Date Analyzed 1/1/86

Johnny R. Adamson
 Sample Matrix: _____

QC Report No. PJKS-04

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	.4	<10		40.9		
bis(2-chloroethoxy) methane	.12	<12		44.2		
bis(2-chloroisopropyl) ether	.25	<25		42.2		
Bromobenzene	.8	<10		29.18		
Bromodichloromethane	.2	<10		15.69		
Bromoform	.4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	.3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	.10	<10		18.7		
Chlorobenzene	.5	<10		26.01		
Chloroethane	.10	<10		4.51		
Chloroform	.1	<10		13.01		
1-Chlorohexane	.2	<10		26.58		
2-Chloroethyl vinyl ether	.3	<10		19.49		
Chloromethane	.2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	.4	<10		37.9		
Dibromochloromethane	.2	<10		18.68		

continued on back

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	.6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	.5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	5	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1169
Field Sample No. 11-7, SD-1
Date Collected 12-18-85
Date Received 12-19-85
Date Analyzed 1/1/86Johnny R. Adams
Sample Matrix: _____QC Report No. PJKS-C4☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	.12	<12		44.2		
bis(2-chloroisopropyl) ether	.25	<25		42.2		
Bromobenzene	.8	<10		29.18		
Bromodichloromethane	.2	<10		15.69		
Bromoform	.4	<10		21.24		
Bromomethane	.24	<24		2.85		
Carbon tetrachloride	.3	<10		15.47		
Chloroacetaldehyde	.10	<10		11.6		
Chloral	.10	<10		18.7		
Chlorobenzene	.5	<10		26.01		
Chloroethane	.10	<10		4.51		
Chloroform	.1	<10		13.01		
1-Chlorohexane	.2	<10		26.58		
2-Chloroethyl vinyl ether	.3	<10		19.49		
Chloromethane	.2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	.4	<10		37.9		
Dibromochloromethane	.2	<10		18.68		

continued on back

12-85-1169

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	.5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	.1	<10		11.67		
1,2-Dichloroethane	.1	<10		13.55		
1,1-Dichloroethylene	.3	<10		10.31		
trans-1,2-Dichloroethylene	.2	<10		12.35		
Dichloromethane	.5	<10		7.50		
1,2-Dichloropropane	.1	<10		17.19		
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	.7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	.1	<10		18.68		
Trichloroethylene	.2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	.4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1029Client U.S. Air ForceField Sample No. 11-8, SD-2Project PJKS (Denver)Date Collected 1-7-86

Client No. _____

Date Received 1-3-86

Laboratory Supervisor Approval:

Date Analyzed 1/8/86Johnny R. AdamsQC Report No. PJKS-C8

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

1-86-1029

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 12-85-1171
 Field Sample No. 11-9, SD-1
 Date Collected 12-18-85
 Date Received 12-19-85
 Date Analyzed 1/1/86

Johnny R Adams
 Sample Matrix: _____

QC Report No. PJKS-C4

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	.1	<10		13.09		
1,2-Dichlorobenzene	.3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	.30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	.3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	.6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	.7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	.1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 12-85-1172
 Field Sample No. 11-10, SD-1
 Date Collected 12-18-85
 Date Received 12-19-85
 Date Analyzed 1/1/86

Johnny R. Adams
 Sample Matrix: _____

QC Report No. PJKS-05

☐ Water (ug/L)
☒ Soil (ug/g)
☐ Other _____

Dilution Factor _____
 *Moisture _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	.8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	.4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	5	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	2	<10		23.01	
Vinyl chloride	4	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 12-85-1162Client U.S. Air ForceField Sample No. 11-1, SD-2, ESProject PJKS (Denver)Date Collected 12/18/85

Client No. _____

Date Received 12/19/85

Laboratory Supervisor Approval:

Date Analyzed 1/1/86Johnny R. AdamsenQC Report No. 56528-4

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval:Lab Sample No. 12-85-1163
Field Sample No. 11-2, SD-2, ES
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86Johnny R. Adams
Sample MatrixQC Report No. 56528-4☐ Water (ug/L)☒ Soil (ug/g)☐ Other _____

Dilution Factor _____

*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1164
Field Sample No. 18-3, SD-1, ES
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86Johnny R. Adamsen
Sample Matrix _____QC Report No. 56528-4☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	.4	<10		2.26	
Chlorobenzene	.4	<10		16.46	
1,2-Dichlorobenzene	.8	<10		27.93	
1,3-Dichlorobenzene	.8	<10		26.40	
1,4-Dichlorobenzene	.6	<10		22.51	
Ethyl benzene	.4	<10		7.18	
Toluene	.4	<10		5.47	
Xylenes (Dimethyl benzene)	.4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Client U.S. Air ForceProject PJKS (Denver)

Client No. _____

Laboratory Supervisor Approval: _____

Lab Sample No. 12-85-1165Field Sample No. 11-4, SD-1, ESDate Collected 12/18/85Date Received 12/19/85Date Analyzed 1/1/86QC Report No. 56528-4

Sample Matrix: _____

☐ Water (ug/L)☒ Soil (ug/g)☐ Other _____

Dilution Factor _____

*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 12-85-1166
Field Sample No. 11-5, SD-1, ES
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86

QC Report No. 56528-4

Johnny R. Adamsen
Sample Matrix

☐ / Water (ug/L)☒ / Soil (ug/g)☐ / Other Dilution Factor *Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Lab Sample No. 12-85-1167
Field Sample No. 11-5, SD-2, ES
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86Johnny R. Adamson
Sample MatrixQC Report No. 56528-4☐ Water (ug/L)Dilution Factor ☒ Soil (ug/g)*Moisture ☐ Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	4	<10		2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10		26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
Xylenes (Dimethyl benzene)	4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 12-85-1168Client U.S. Air ForceField Sample No. 11-6, SD-1, ESProject PJKS (Denver)Date Collected 12/18/85

Client No. _____

Date Received 12/19/85

Laboratory Supervisor Approval: _____

Date Analyzed 1/1/86Johnny R. Adams
Sample Matrix: _____QC Report No. 56528-4☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	.4	<10		2.26	
Chlorobenzene	.4	<10		16.46	
1,2-Dichlorobenzene	.8	<10		27.93	
1,3-Dichlorobenzene	.8	<10		26.40	
1,4-Dichlorobenzene	.6	<10		22.51	
Ethyl benzene	.4	<10		7.18	
Toluene	.4	<10		5.47	
Xylenes (Dimethyl benzene)	.4	<10		15.26	
				16.91	
				17.77	

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1169
Field Sample No. 11-7, SD-1, ES
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86Johnny R. AdamsenQC Report No. 56528-4

Sample Matrix:

☐ Water (ug/L)☒ Soil (ug/g)☐ Other _____

Dilution Factor _____

*Moisture _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 12-85-1170
Field Sample No. 11-8, SD-1, ES
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86

Johnny R. Adams

QC Report No. 56528-4

Sample Matrix:

/ / Water (ug/L)

/X / Soil (ug/g)

/ / Other _____

Dilution Factor _____

*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528Lab Sample No. 1-86-1029Client U.S. Air ForceField Sample No. 11-8, SD-2, ESProject PJKS (Denver)Date Collected 1/2/86

Client No. _____

Date Received 1/3/86

Laboratory Supervisor Approval:

Date Analyzed 1/5/86Johnny R. AdamsQC Report No. 56528-8

Sample Matrix:

☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 12-85-1171
Field Sample No. H-9, SD-1, ES
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86

Johnny R. Adams
Sample Matrix

QC Report No. 56528-4

☐ Water (ug/L)

Dilution Factor

☒ Soil (ug/g)

*Moisture %

☐ Other

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020Page 1 of 1
Report _____ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: _____Lab Sample No. 12-85-1172
Field Sample No. 13-10, SD-1, ES
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86Johnny R. Adamson
Sample Matrix _____QC Report No. 56528-5☐ Water (ug/L)

Dilution Factor _____

☒ Soil (ug/g)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26		
				16.91		
				17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality ParametersPage 1 of 1
Report

ES Job No. 56528
 Client USAF
 Project PJKS
 Client No. _____
 Date Collected 12/18/85
 Date Received 12/19/85

QC Report No. _____

Laboratory Supervisor Approval:

Johnny R. Anderson

Dilution Factor _____

*Moisture _____

Sample Matrix:

☒ Water mg/L☐ Soil (ug/g) (ug/Kg)☐ Other

See page 2

Field Sample No.	Lab Sample No.	NO ₂	NO ₃	Phenolics	O+G	TDS	TKN	C, II	Notes
PJKS 11-3, SW-1, ES	12-85-1173	0.12	<0.13	<0.005	<1	340	0.1	<0.02	
11-4, SW-1, ES	1174	0.11	<0.1	<0.005	<1	260	0.1	<0.02	
11-5, SW-1, ES	1175	0.11	<0.1	0.010	2.37	320	0.1	<0.02	
11-5, SW-2, ES	1176	0.082	<0.1	<0.008	<1	300	0.4	<0.02	
11-6, SW-1, ES	1177	0.095	<0.1	<0.008	<1	320	0.1	<0.02	
11-7, SW-1, ES	1178	0.14	0.9	0.013	1.27	340	0.1	<0.02	
11-8, SW-1, ES	1179	0.088	0.9	<0.008	<1	340	0.2	<0.02	
11-9, SW-1, ES	1180	0.14	0.9	<0.008	<1	340	0.2	<0.02	
11-10, SW-1, ES	1181	0.098	0.9	<0.008	<1	340	0.2	<0.02	
11-11, SW-2, ES	1186	0.032		<0.008	<1		<0.1	<0.02	
✓ 11-12, SW-2, ES	✓ 1187	0.18	<0.1	<0.008	2.07	320	<0.1	<0.02	
Changes per J. Anderson									
M		12	1/20	1/20	1	12/21	1	12	
D		20	20	1	7	23/21	17	27	
Date Analyzed				1/20 - 5. Airborne					
Analytical Method		EPA 354.1	EPA 352.1	EPA 420.1	EPA 413.1	EPA 160.3	EPA 351.3	EPA 796	

* If % moisture is reported, results are presented on a dry-weight basis.

Engineering-Science

ANALYTICAL RESULTS SUMMARY Environmental Quality Parameters

Page 1 of 1
Report

ES Job No. 56528
Client USAF
Project PTKS
Client No. _____
Date Collected 12/18/85
Date Received 12/19/85

QC Report No. _____
Laboratory Supervisor Approval: Johnny R. Adams
Dilution Factor _____
*Moisture _____

Sample Matrix:

☐ Water (ug/L)
☐ Soil (ug/g) (ug/Kg)
☒ Other Sediment ug/g

Field Sample No.	Lab Sample No.	NO ₃	NO ₃ ⁻	Phenolics	TKN	C, %	Notes
PTKS 11-1 SD-2, ES	12-85-1162	0.065	<1	<0.5	280	<0.17	
11-2 SD-2, ES	1163	0.08	<1	<0.5	390	1.1	
11-3 SD-1, ES	1164	0.053	<1	<0.5	74	<0.17	
11-4 SD-1, ES	1165	0.059	<1	<0.5	567 71	<0.17	
11-5 SD-1, ES	1166	0.04	<1	<0.5	71	<0.17	
11-5 SD-2, ES	1167	0.056	<1	<0.5	110	<0.17	
11-6 SD-1, ES	1168	0.20	<1	0.5	120	<0.17	
11-7 SD-1, ES	1169	0.056	<1	<0.5	110	<0.17	
11-8 SD-1, ES	1170	0.065	<1	<0.5	200	0.23	
11-9 SD-1, ES	1171	0.08	<1	<0.5	68	<0.17	
11-10 SD-1, ES	1172	0.053	13.9	<0.5	65	<0.17	
Date Analyzed	M D	12 27	1 27	1 9+13	1 21	12 30+30	
Analytical Method		EPA 354.1	EPA 32.1	EPA 400.1	EPA 351.3	EPA 7196	

* If moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client Lisa Korner
Project USAF. P.J.K.S.
Client No. _____
Date Collected _____
Date Received 12 April 86

QC Report No. _____
Laboratory Supervisor Approval: Johnny R. Adams
Dilution Factor _____
Moisture _____

Sample Matrix:	
<input checked="" type="checkbox"/>	Water (ug/L) (ug/kg)
<input type="checkbox"/>	Soil (ug/g) (ug/kg)
<input type="checkbox"/>	Other

[illegible]

• If moisture is reported, results are presented on a dry-weight basis.

Detection limit for TKN $< 0.2 \text{ mg/l}$

$\text{Rm } 20.2 \text{ kg}$

Pond Water Results
601, 602, 625, Metals and Inorganics

Engineering Science
Page 18

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423
Client _____
Project Air Force PJKS
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36686-22
Field Sample No. PJKS, 1-SW-2, IT
Date Collected 4-24-86
Date Received 4-25-86
Date Analyzed 4-30-86
QC Report No. 601-28

Sample Matrix:

☒ Water (ug/L)☐ Soil☐ Other _____Dilution Factor N/A

*Moisture _____ %

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

L-300

Engineering Science
Page 19

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 1-SW-2, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	ND<1.0	---	---	---	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	ND<1.0	---	---	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	TR<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	ND<1.0	---	---	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	TR<1.0	---	---	---	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client _____
Project Air Force PJKS
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36686-5
Field Sample No. PJKS, 1-SW-2, IT
Date Collected 4-24-86
Date Received 4-25-86
Date Analyzed 5-13-86
QC Report No. 602-23

Sample Matrix:

☒ Water (ug/L)☐ Soil☐ Other _____Dilution Factor N/A

*Moisture _____%

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	TR<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client _____
Project Air Force PJKS
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36686-6
Field Sample No. PJKS, 1-SW-2, IT Dup.
Date Collected 4-24-86
Date Received 4-25-86
Date Analyzed 5-13-86
QC Report No. 602-23

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other _____

Dilution Factor N/A

*Moisture _____ %

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	TR<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	TR<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client _____
Project Air Force PJKS
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36686-7
Field Sample No. PJKS, 1-SW-2, IT Spike
Date Collected 4-24-86
Date Received 4-25-86
Date Analyzed 5-13-86
QC Report No. 602-23

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other _____

Dilution Factor N/A

*Moisture _____%

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	10.5	---	2.5	---	
Chlorobenzene	1.0	9.6	---	7.8	---	
1,2-Dichlorobenzene	1.0	10.3	---	14.3	---	
1,3-Dichlorobenzene	1.0	10.4	---	12.8	---	
1,4-Dichlorobenzene	1.0	10.2	---	12.7	---	
Ethyl benzene	1.0	9.6	---	7.3	---	
Toluene	1.0	8.9	---	4.8	---	
Xylenes (Dimethyl benzene)	1.0	---	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

ES ENGINEERING-SCIENCE

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Priority Pollutant Analysis Base Neutrals - EPA 625

Date Received 1-13-86
Date Reported 2-7-86

P.O. No. --
Job No. 8047.19
Page 1 OF 4

For: ES-Atlanta/PJKS, Denver, CO
Address:

Attn: Johnny Adamson

Lab No:	860123	860124
Source of Sample:	01-86-1086	01-86-1087
	Water	Soil
Collected:	1-9-86	1-9-86
Collected:	1430	1500

*Pond + Sed.
water*

Compound	ANALYTICAL RESULTS	
	ug/L	ug/g
1,3-Dichlorobenzene	<2	<0.05
1,4-Dichlorobenzene	<2	<0.05
Hexachloroethane	<2	<0.05
Bis(2-chloroethyl)ether	<6	<0.2
1,2-Dichlorobenzene	<2	<0.05
Bis(2-chloroisopropyl)ether	<6	<0.2
N-Nitrosodi-n-propyl amine	<10	<0.2
Hexachlorobutadiene	<2	<0.05
1,2,4-Trichlorobenzene	<2	<0.05
Isophorone	<2	<0.05
Naphthalene	<2	<0.05
Bis(2-chloroethoxy)methane	<5	<0.1
2-Chloronaphthalene	<2	<0.05
Acenaphthylene	<4	<0.1
Acenaphthene	<2	<0.05
Dimethyl phthalate	<2	<0.05
2,6-Dinitrotoluene	<2	<0.05
Fluorene	<2	<0.05
2,4-Dinitrotoluene	<6	<0.2
Diethylphthalate	<2	<0.05
N-Nitrosodiphenylamine	<2	<0.05
Hexachlorobenzene	<2	<0.05

Priority Pollutant Analysis
Base Neutrals - EPA 625
(continued)

Date Received 1-13-86
Date Reported 2-7-86

P.O. No. --
Job No. 8047.19
Page 2 OF 4

For: ES-Atlanta/PJKS, Denver, CO
Address:

Attn: Johnny Adamson

Lab No:	860123	860124
Source of Sample:	01-86-1086	01-86-1087
	Water	Soil
Date Collected:	1-9-86	1-9-86
Time Collected:	1430	1500

Compound	ANALYTICAL RESULTS	
	<u>ug/L</u>	<u>ug/g</u>
Phenanthrene	<5	<0.1
Anthracene	<2	<0.05
Dibutyl phthalate	<2	<0.05
Fluoranthene	<2	<0.05
Pyrene	<2	<0.05
Butyl benzyl phthalate	<2	<0.05
Bis(2-ethylhexyl) phthalate	<2	<0.05
Chrysene	<2	<0.05
Benzo(a)anthracene	<8	<0.2
Di-n-octylphthalate	<2	<0.05
Benzo(b)fluoranthene	<5	<0.1
Benzo(k)fluoranthene	<2	<0.05
Benzo(a)pyrene	<2	<0.05
Indeno(1,2,3-c,d)pyrene	<4	<0.1
Dibenzo(a,h)anthracene	<2	<0.05
Benzo(ghi)perylene	<4	<0.1

Priority Pollutant Analysis
Pesticides and PCBs- EPA 625

Date Received 1-13-86

Date Reported 2-7-86

P.O. No. --

Job No. 8047.19

Page 3 OF 4

For: ES-Atlanta/PJKS, Denver, CO
Address:

Attn: Johnny Adamson

Lab No:

860123

860124

Source of Sample:

01-86-1086 01-86-1087

Water

Soil

Date Collected:

1-9-86

1-9-86

Time Collected:

1430

1500

Compound

ANALYTICAL RESULTS

ug/Lug/g

Alpha-BHC

<4

<0.1

Gamma-BHC

<4

<0.1

Beta-BHC

<4

<0.1

Heptachlor

<2

<0.05

Delta-BHC

<4

<0.1

Aldrin

<2

<0.05

Heptachlor epoxide

<2

<0.05

Endosulfan I

<10

<0.2

Dieldrin

<2

<0.05

4,4'-DDE

<6

<0.2

Endrin

<10

<0.2

Endosulfan II

<10

<0.2

4,4'-DDD

<3

<0.08

4,4'-DDT

<5

<0.1

Endosulfan Sulfate

<6

<0.2

Endrin aldehyde

<20

<0.5

Chlordane

<10

<0.2

Toxaphene

<50

<1

PCB-1016

<40

<1

PCB-1221

<40

<1

PCB-1232

<40

<1

PCB-1242

<40

<1

PCB-1248

<40

<1

PCB-1254

<40

<1

PCB-1260

<40

<1

Priority Pollutant Analysis
Acid Extractables - EPA 625Date Received 1-13-86
Date Reported 2-7-86P.O. No. --
Job No. 8047.19
Page 4 OF 4For: ES-Atlanta/PJKS, Denver, CO
Address:

Attn: Johnny Adamson

Lab No:	860123	860124
Source of Sample:	01-86-1086	01-86-1087
	Water	Soil
Date Collected:	1-9-86	1-9-86
Time Collected:	1430	1500

Compound	ANALYTICAL RESULTS	
	<u>ug/L</u>	<u>ug/g</u>
2-Chlorophenol	<4	<0.1
2-Nitrophenol	<4	<0.1
Phenol	<2	<0.05
2,4-Dimethylphenol	<3	<0.08
2,4-Dichlorophenol	<3	<0.08
2,4,6-Trichlorophenol	<3	<0.08
4-Chloro-3-methylphenol	<3	<0.08
2,4-Dinitrophenol	<40	<1
2-Methyl-4,6-Dinitrophenol	<20	<0.5
Pentachlorophenol	<4	<0.1
4-Nitrophenol	<5	<0.1

James H. Morris
Laboratory Supervisor

Engineering-Science

ES Job No. 87528

Client WSAFF

Project P5 KS Plant (Denver)

Client No. _____

Date Collected 1-9-86

Date Received 1-10-86

QC Report No.

Laboratory Supervisor Approval:

John R. Adams

Dilution Factor

Moisture

1/V/ other lead sediments (ug/g)

Field Sample No.	Lab Sample No.	N _O	N _B	O & G	Phenolics	TKN	C, %	No test
PJKS I-SD-1, ES	01-86-187	S-42	4.5	584	0.65	780	0.74	
Date Analyzed	M D	2 / 10	2 / 15	1 / 32	1 / 20	1 / 31	1 / 20	
Analytical Method		EPA 354	EPA 354	EPA 413.1	EPA 420.1	EPA 352.3	EPA 2196	

* If moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY

Engineering-Science

ES Job No. 56528
Client USAF
Project PJKS Plant
Client No. _____
Date Collected 9 Jan. 86
Date Received 10 Jan. 86

QC Report No. _____
Laboratory Supervisor Approval: John R. Adamson
Dilution Factor _____
Sample Matrix: _____
☐ Water (ug/L) _____
☐ Soil (ug/g) (ug/Kg) _____
☒ Other Pond T-8A Sediment (ug/g)
*Moisture _____

[illegible]

* If moisture is reported, results are presented on a dry-weight basis.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN	DO	DP	DQ	DR	DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB	EC	ED	EE	EF	EG	EH	EI	EJ	EK	EL	EM	EN	EO	EP	EQ	ER	ES	ET	EU	EV	EW	EX	EY	EZ	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ	FK	FL	FM	FN	FO	FP	FQ	FR	FS	FT	FU	FV	FW	FX	FY	FZ	GA	GB	GC	GD	GE	GF	GG	GH	GI	GJ	GK	GL	GM	GN	GO	GP	GQ	GR	GS	GT	GU	GV	GW	GX	GY	GZ	HA	HB	HC	HD	HE	HF	HG	HH	HI	HJ	HK	HL	HM	HN	HO	HP	HQ	HR	HS	HT	HU	HV	HW	HX	HY	HZ	IA	IB	IC	ID	IE	IF	IG	IH	II	IJ	IK	IL	IM	IN	IO	IP	IQ	IR	IS	IT	IU	IV	IW	IX	IY	IZ	JA	JB	JC	JD	JE	JF	JG	JH	JI	IJ	JK	KL	JM	JN	JO	JP	JQ	JR	JS	JT	JU	JV	JW	JX	JY	JZ	KA	KB	KC	KD	KE	KF	KG	KH	KI	KJ	KK	KL	KM	KN	KO	KP	KQ	KR	KS	KT	KU	KV	KW	KX	KY	KZ	LA	LB	LC	LD	LE	LF	LG	LH	LI	LJ	LK	LL	LM	LN	LO	LP	LQ	LR	LS	LT	LU	LV	LW	LX	LY	LZ	MA	MB	MC	MD	ME	MF	MG	MH	MI	MJ	MK	ML	MM	MN	MO	MP	MQ	MR	MS	MT	MU	MV	MW	MX	MY	MZ	NA	NB	NC	ND	NE	NF	NG	NH	NI	NJ	NK	NL	NM	NN	NO	NP	NQ	NR	NS	NT	NU	NV	NW	NX	NY	NZ	OA	OB	OC	OD	OE	OF	OG	OH	OI	OJ	OK	OL	OM	ON	OO	OP	OQ	OR	OS	OT	OU	OV	OW	OX	OY	OZ	PA	PB	PC	PD	PE	PF	PG	PH	PI	PJ	PK	PL	PM	PN	PO	PP	PQ	PR	PS	PT	PU	PV	PW	PX	PY	PZ	QA	QB	QC	QD	QE	QF	QG	QH	QI	QJ	QK	QL	QM	QN	QO	QP	QQ	QR	QS	QT	QU	QV	QW	QX	QY	QZ	RA	RB	RC	RD	RE	RF	RG	RH	RI	RJ	RK	RL	RM	RN	RO	RP	RQ	RR	RS	RT	RU	RV	RW	RX	RY	RZ	SA	SB	SC	SD	SE	SF	SG	SH	SI	SJ	SK	SL	SM	SN	SO	SP	SQ	SR	SS	ST	SU	SV	SW	SX	SY	SZ	TA	TB	TC	TD	TE	TF	TG	TH	TI	TJ	TK	TL	TM	TN	TO	TP	TQ	TR	TS	TT	TU	<th>TW</th> <th>TX</th> <th>TY</th> <th>TZ</th> <th>UA</th> <th>UB</th> <th>UC</th> <th>UD</th> <th>UE</th> <th>UF</th> <th>UG</th> <th>UH</th> <th>UI</th> <th>UJ</th> <th>UK</th> <th>UL</th> <th>UM</th> <th>UN</th> <th>UO</th> <th>UP</th> <th>UQ</th> <th>UR</th> <th>US</th> <th>UT</th> <th>UU</th> <th>UV</th> <th>UW</th> <th>UX</th> <th>UY</th> <th>UZ</th> <th>VA</th> <th>VB</th> <th>VC</th> <th>VD</th> <th>VE</th> <th>VF</th> <th>VG</th> <th>VH</th> <th>VI</th> <th>VJ</th> <th>VK</th> <th>VL</th> <th>VM</th> <th>VN</th> <th>VO</th> <th>VP</th> <th>VQ</th> <th>VR</th> <th>VS</th> <th>VT</th> <th>VU</th> <th>VV</th> <th>VW</th> <th>VX</th> <th>VY</th> <th>VZ</th> <th>WA</th> <th>WB</th> <th>WC</th> <th>WD</th> <th>WE</th> <th>WF</th> <th>WG</th> <th>WH</th> <th>WI</th> <th>WJ</th> <th>WK</th> <th>WL</th> <th>WM</th> <th>WN</th> <th>WO</th> <th>WP</th> <th>WQ</th> <th>WR</th> <th>WS</th> <th>WT</th> <th>WU</th> <th>WV</th> <th>WW</th> <th>WX</th> <th>WY</th> <th>WZ</th> <th>XA</th> <th>XB</th> <th>XC</th> <th>XD</th> <th>XE</th> <th>XF</th> <th>XG</th> <th>XH</th> <th>XI</th> <th>XJ</th> <th>XK</th> <th>XL</th> <th>XM</th> <th>XN</th> <th>XO</th> <th>XP</th> <th>XQ</th> <th>XR</th> <th>XS</th> <th>XT</th> <th>XU</th> <th>XV</th> <th>XW</th> <th>XX</th> <th>XY</th> <th>XZ</th> <th>YA</th> <th>YB</th> <th>YC</th> <th>YD</th> <th>YE</th> <th>YF</th> <th>YG</th> <th>YH</th> <th>YI</th> <th>YJ</th> <th>YK</th> <th>YL</th> <th>YM</th> <th>YN</th> <th>YO</th> <th>YP</th> <th>YQ</th> <th>YR</th> <th>YS</th> <th>YT</th> <th>YU</th> <th>YV</th> <th>YW</th> <th>YX</th> <th>YY</th> <th>YZ</th> <th>ZA</th> <th>ZB</th> <th>ZC</</th>	TW	TX	TY	TZ	UA	UB	UC	UD	UE	UF	UG	UH	UI	UJ	UK	UL	UM	UN	UO	UP	UQ	UR	US	UT	UU	UV	UW	UX	UY	UZ	VA	VB	VC	VD	VE	VF	VG	VH	VI	VJ	VK	VL	VM	VN	VO	VP	VQ	VR	VS	VT	VU	VV	VW	VX	VY	VZ	WA	WB	WC	WD	WE	WF	WG	WH	WI	WJ	WK	WL	WM	WN	WO	WP	WQ	WR	WS	WT	WU	WV	WW	WX	WY	WZ	XA	XB	XC	XD	XE	XF	XG	XH	XI	XJ	XK	XL	XM	XN	XO	XP	XQ	XR	XS	XT	XU	XV	XW	XX	XY	XZ	YA	YB	YC	YD	YE	YF	YG	YH	YI	YJ	YK	YL	YM	YN	YO	YP	YQ	YR	YS	YT	YU	YV	YW	YX	YY	YZ	ZA	ZB	ZC</
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OC Report No.

Laboratory Supervisor Approval:

Sample Matrix:

	Water (ug/L) (mg/L)	Soil (ug/g) (ug/kg)
1/1		
1/1		

Moisture

[illegible]

* If moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY

Page 1 of 1
Report

GC Report No.
Laboratory Supervisor Approval:
Johnny R. Adams
Dilution Factor

Moisture
2/c

Sample Matrix:

/ / Water (ug/L)

/ / Soil (uq/q) (uq/kg)

11/11/11	other pond sediments (mg/g)
11/11/11	11/11/11

Field Sample No.	Lab Sample No.	N _O	N _O ₃	O & G	Phenolics	TKN	C _r ^{ph}	Notes:
PJKS-1-SO-1, ES	01-86-1087	5.42	4.5	584	0.65	780	0.74	
Date Analyzed	M / D	2 / 10	2 / 18	1 / 22	1 / 20	1 / 31	1 / 20	
Analytical Method		EPA 354.1	EPA 352.1	EPA 413.1	EPA 420.1	EPA 351.3	EPA 7196	

* If a moisture is reported, results are presented on a dry-weight basis.

Groundwater Results
Method 601, 602, 625, Methods and
Inorganic Parameters

ES Results for 601 and 602 Methods
Dated 1/29/86

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 1-86-1126
 Field Sample No. 1-MW-1, GW-1, ES
 Date Collected 1/14/86
 Date Received 1/5/86
 Date Analyzed 1/29/86

Johnny R. Adams

QC Report No. 56528-11

Sample Matrix:

/X/ Water (ug/L)

/ Soil (ug/g) (ug/Kg)

/ Other _____

Dilution Factor _____

*Moisture _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Bromodichloromethane	0.10	<10		15.69	
Bromoform	0.20	<10		21.24	
Bromomethane	1.18	<10		2.85	
Carbon tetrachloride	0.12	<4.0		15.47	
Chlorobenzene	0.25	<10		26.01	
Chloroethane	0.52	<10		4.51	
2-Chloroethylvinyl ether	0.13	<10		19.49	
Chloroform	0.05	<10		13.01	
Chloromethane	0.08	<10		1.95	
Dibromochloromethane	0.09	<10		18.68	
1,2-Dichlorobenzene	0.15	<10		60.1	
1,3-Dichlorobenzene	0.32	<10		42.9	
1,4-Dichlorobenzene	0.24	<10		37.3	
Dichlorodifluoromethane	1.81	<10		3.54	
1,1-Dichloroethane	0.07	<10		11.67	
1,2-Dichloroethane	0.03	<0.1		13.55	
1,1-Dichloroethene	0.13	<10		10.31	
trans-1,2-Dichloroethene	0.10	30.4	<0.1	12.35	11.93
1,2-Dichloropropane	0.08	<10		17.19	
cis-1,3-Dichloropropene	0.20	14.3	<0.2	18.68	13.19
trans-1,3-Dichloropropene	0.10	<10		17.24	
Methylene chloride	0.25	<4.0		7.50	
1,1,2,2-Tetrachloroethane	0.03	<10		23.47	
Tetrachloroethene	0.03	<4.0		23.47	
1,1,1-Trichloroethane	0.03	<10		14.76	
1,1,2-Trichloroethane	0.02	<10		18.68	
Trichloroethene	0.12	22.4	3.9	17.91	9.61
Trichlorofluoromethane	0.01	<10		8.58	
Vinyl chloride	0.18	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

note 1: Due to interference observed on column 1, the quantitation obtained on column 2 is the correct value. L-317

ES Job No. 56528Lab Sample No. 1-86-1180Client U.S. Air ForceField Sample No. 1-MW-2, GW-2, ESProject PJXS (Denver)Date Collected 1/16/86

Client No. _____

Date Received 1/17/86

Laboratory Supervisor Approval: _____

Date Analyzed 1/30/86Johnny R. AdamsonQC Report No. 56528-11

Sample Matrix:

☒ /X/ Water (ug/L)

Dilution Factor _____

☐ / Soil (ug/g) (ug/Kg)

*Moisture _____

☐ / Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Bromodichloromethane	0.10	<10		15.69	
Bromoform	0.20	<10		21.24	
Bromomethane	1.18	<10		2.85	
Carbon tetrachloride	0.12	<4.0		15.47	
Chlorobenzene	0.25	<10		26.01	
Chloroethane	0.52	<10		4.51	
2-Chloroethylvinyl ether	0.13	<10		19.49	
Chloroform	0.05	<10		13.01	
Chloromethane	0.08	<10		1.95	
Dibromochloromethane	0.09	<10		18.68	
1,2-Dichlorobenzene	0.15	<10		60.1	
1,3-Dichlorobenzene	0.32	<10		42.9	
1,4-Dichlorobenzene	0.24	<10		37.3	
Dichlorodifluoromethane	1.81	<10		3.54	
1,1-Dichloroethane	0.07	<10		11.67	
1,2-Dichloroethane	0.03	<0.1		13.55	
1,1-Dichloroethene	0.13	<10		10.31	
trans-1,2-Dichloroethene	0.10	33.7	<0.10	12.35	11.93
1,2-Dichloropropane	0.08	<10		17.19	
cis-1,3-Dichloropropene	0.20	<10		18.68	
trans-1,3-Dichloropropene	0.10	<10		17.24	
Methylene chloride	0.25	<4.0		7.50	
1,1,2,2-Tetrachloroethane	0.03	<10		23.47	
Tetrachloroethene	0.03	<4.0		23.47	
1,1,1-Trichloroethane	0.03	<10		14.76	
1,1,2-Trichloroethane	0.02	<10		18.68	
Trichloroethene	0.12	36.0	1.24	17.91	9.61
Trichlorofluoromethane	0.01	<10		8.58	
Vinyl chloride	0.18	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

note 1: Due to interference observed on column 1, the quantitation obtained on column 2 is the correct value. L-318

ES Job No. 56528Lab Sample No. 1-86-1127Client U.S. Air ForceField Sample No. 1-MW-2, GW-1, ESProject PJKS (Denver)Date Collected 1/14/86

Client No. _____

Date Received 1/15/86

Laboratory Supervisor Approval: _____

Date Analyzed 1/29/86Johnny R. AdamsonQC Report No. 56528-11

Sample Matrix:

☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____ %

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	56.2	<0.1	12.35	11.93	
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	13.2	1.3	17.91	9.61	1
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

note 1: Due to interference observed on column 1, the quantitation obtained on column 2 is the correct value. L-319

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval: _____

Lab Sample No. 1-86-1130
 Field Sample No. 2-MW-3, GW-1, ES
 Date Collected 1/15/86
 Date Received 1/16/86
 Date Analyzed 1/29/86

Johnny R. Adamson

QC Report No. 56528-11

Sample Matrix:

/X/ Water (ug/L)

Dilution Factor _____

/ Soil (ug/g) (ug/Kg)

*Moisture _____

/ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Bromodichloromethane	0.10	<10		15.69	
Bromoform	0.20	<10		21.24	
Bromomethane	1.18	<10		2.85	
Carbon tetrachloride	0.12	<4.0		15.47	
Chlorobenzene	0.25	<10		26.01	
Chloroethane	0.52	<10		4.51	
2-Chloroethylvinyl ether	0.13	<10		19.49	
Chloroform	0.05	<10		13.01	
Chloromethane	0.08	<10		1.95	
Dibromochloromethane	0.09	<10		18.68	
1,2-Dichlorobenzene	0.15	<10		60.1	
1,3-Dichlorobenzene	0.32	<10		42.9	
1,4-Dichlorobenzene	0.24	<10		37.3	
Dichlorodifluoromethane	1.81	<10		3.54	
1,1-Dichloroethane	0.07	<10		11.67	
1,2-Dichloroethane	0.03	<0.1		13.55	
1,1-Dichloroethene	0.13	<10		10.31	
trans-1,2-Dichloroethene	0.10	237	0.14	12.35	11.43
1,2-Dichloropropane	0.08	<10		17.19	
cis-1,3-Dichloropropene	0.20	<10		18.68	
trans-1,3-Dichloropropene	0.10	<10		17.24	
Methylene chloride	0.25	<4.0		7.50	
1,1,2,2-Tetrachloroethane	0.03	<10		23.47	
Tetrachloroethene	0.03	<4.0		23.47	
1,1,1-Trichloroethane	0.03	<10		14.76	
1,1,2-Trichloroethane	0.02	<10		18.68	
Trichloroethene	0.12	735	0.83	17.91	9.61
Trichlorofluoromethane	0.01	<10		8.58	
Vinyl chloride	0.18	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

note 1: Due to interference observed on column 1, the quantitation obtained on column 2 is the correct value. L-320

ES Job No. 56528Lab Sample No. 1-86-1178Client U.S. Air ForceField Sample No. 4-MW-4, GW-1, ESProject PJKS (Denver)Date Collected 1/16/86Client No. Date Received 1/17/86Laboratory Supervisor Approval: Date Analyzed 1/29/86Johnny R. AdamsQC Report No. 56528-11Sample Matrix: ☒ Water (ug/L)Dilution Factor ☐ Soil (ug/g) (ug/Kg)*Moisture ☐ Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Bromodichloromethane	0.10	<10		15.69	
Bromoform	0.20	<10		21.24	
Bromomethane	1.18	<10		2.85	
Carbon tetrachloride	0.12	<4.0		15.47	
Chlorobenzene	0.25	<10		26.01	
Chloroethane	0.52	<10		4.51	
2-Chloroethylvinyl ether	0.13	<10		19.49	
Chloroform	0.05	<10		13.01	
Chloromethane	0.08	<10		1.95	
Dibromochloromethane	0.09	<10		18.68	
1,2-Dichlorobenzene	0.15	<10		60.1	
1,3-Dichlorobenzene	0.32	<10		42.9	
1,4-Dichlorobenzene	0.24	<10		37.3	
Dichlorodifluoromethane	1.81	<10		3.54	
1,1-Dichloroethane	0.07	<10		11.67	
1,2-Dichloroethane	0.03	<0.1		13.55	
1,1-Dichloroethene	0.13	<10		10.31	
trans-1,2-Dichloroethene	0.10	77.3	<0.10	12.35	11.93
1,2-Dichloropropane	0.08	<10		17.19	
cis-1,3-Dichloropropene	0.20	<10		18.68	
trans-1,3-Dichloropropene	0.10	<10		17.24	
Methylene chloride	0.25	<4.0		7.50	
1,1,2,2-Tetrachloroethane	0.03	<10		23.47	
Tetrachloroethene	0.03	<4.0		23.47	
1,1,1-Trichloroethane	0.03	<10		14.76	
1,1,2-Trichloroethane	0.02	<10		18.68	
Trichloroethene	0.12	95.4	0.34	17.91	9.61
Trichlorofluoromethane	0.01	<10		8.58	
Vinyl chloride	0.18	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

note 1: Due to interference observed on column 1, the quantitation obtained on column 2 is the correct value.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No. _____
 Laboratory Supervisor Approval:

Lab Sample No. 1-86-1179
 Field Sample No. 4-MW-5, GW-1, ES
 Date Collected 1/16/86
 Date Received 1/17/86
 Date Analyzed 1/29/86

John R. Adamson

QC Report No. 56528-11

Sample Matrix

☒ /X/ Water (ug/L)

Dilution Factor _____

☐ / / Soil (ug/g) (ug/Kg)

*Moisture _____

☐ / / Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Bromodichloromethane	0.10	<10		15.69	
Bromoform	0.20	<10		21.24	
Bromomethane	1.18	<10		2.85	
Carbon tetrachloride	0.12	<4.0		15.47	
Chlorobenzene	0.25	<10		26.01	
Chloroethane	0.52	<10		4.51	
2-Chloroethylvinyl ether	0.13	<10		19.49	
Chloroform	0.05	<10		13.01	
Chloromethane	0.08	<10		1.95	
Dibromochloromethane	0.09	<10		18.68	
1,2-Dichlorobenzene	0.15	<10		60.1	
1,3-Dichlorobenzene	0.32	<10		42.9	
1,4-Dichlorobenzene	0.24	<10		37.3	
Dichlorodifluoromethane	1.81	<10		3.54	
1,1-Dichloroethane	0.07	<10		11.67	
1,2-Dichloroethane	0.03	<0.1		13.55	
1,1-Dichloroethene	0.13	<10		10.31	
trans-1,2-Dichloroethene	0.10	<10		12.35	
1,2-Dichloropropane	0.08	<10		17.19	
cis-1,3-Dichloropropene	0.20	<10		18.68	
trans-1,3-Dichloropropene	0.10	<10		17.24	
Methylene chloride	0.25	<4.0		7.50	
1,1,2,2-Tetrachloroethane	0.03	<10		23.47	
Tetrachloroethene	0.03	<4.0		23.47	
1,1,1-Trichloroethane	0.03	<10		14.76	
1,1,2-Trichloroethane	0.02	<10		18.68	
Trichloroethene	0.12	<1.0		17.91	
Trichlorofluoromethane	0.01	<10		8.58	
Vinyl chloride	0.18	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
 Client U.S. Air Force
 Project PJKS (Denver)
 Client No.
 Laboratory Supervisor Approval:

Lab Sample No. 1-86-1133
 Field Sample No. 4-MW-6, GW-2, ES
 Date Collected 1/15/86
 Date Received 1/16/86
 Date Analyzed 1/29/86

Johnny R. Adams

QC Report No. 56528-11

Sample Matrix:

☒ Water (ug/L)

Dilution Factor

☐ Soil (ug/g) (ug/Kg)

*Moisture %

☐ Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Bromodichloromethane	0.10	<10		15.69	
Bromoform	0.20	<10		21.24	
Bromomethane	1.18	<10		2.85	
Carbon tetrachloride	0.12	<4.0		15.47	
Chlorobenzene	0.25	<10		26.01	
Chloroethane	0.52	<10		4.51	
2-Chloroethylvinyl ether	0.13	<10		19.49	
Chloroform	0.05	<10		13.01	
Chloromethane	0.08	<10		1.95	
Dibromochloromethane	0.09	<10		18.68	
1,2-Dichlorobenzene	0.15	<10		60.1	
1,3-Dichlorobenzene	0.32	<10		42.9	
1,4-Dichlorobenzene	0.24	<10		37.3	
Dichlorodifluoromethane	1.81	<10		3.54	
1,1-Dichloroethane	0.07	<10		11.67	
1,2-Dichloroethane	0.03	<0.1		13.55	
1,1-Dichloroethene	0.13	<10		10.31	
trans-1,2-Dichloroethene	0.10	325	<0.10	12.35	11.93
1,2-Dichloropropane	0.08	<10		17.19	
cis-1,3-Dichloropropene	0.20	<10		18.68	
trans-1,3-Dichloropropene	0.10	<10		17.24	
Methylene chloride	0.25	<4.0		7.50	
1,1,2,2-Tetrachloroethane	0.03	<10		23.47	
Tetrachloroethene	0.03	<4.0		23.47	
1,1,1-Trichloroethane	0.03	<10		14.76	
1,1,2-Trichloroethane	0.02	<10		18.68	
Trichloroethene	0.12	<1.0		17.91	1
Trichlorofluoromethane	0.01	<10		8.58	
Vinyl chloride	0.18	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

note 1: Due to interference observed on column 1, the quantitation obtained on column 2 is the correct value. L-323

ES Job No. 56528Lab Sample No. 1-86-1132Client U.S. Air ForceField Sample No. 4-MW-6, GW-1, ESProject PJKS (Denver)Date Collected 1/15/86Client No. Date Received 1/16/86Laboratory Supervisor Approval: Date Analyzed 1/29/86Johnny R. AdamsonQC Report No. 56528-11

Sample Matrix:

/X/ Water (ug/L)Dilution Factor / / Soil (ug/g) (ug/Kg)*Moisture / / Other

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<u>30.7</u>	<0.1	12.35	11.93	1
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<u>61.3</u>	<0.12	17.91	1.61	1
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

note 1: Due to interference observed on column 1, the quantitation obtained on column 2 is the correct value.

Purgeable Halocarbons
EPA Method 601ES Job No. 56528Lab Sample No. 1-86-1177Client U.S. Air ForceField Sample No. 2-MW-7, GW-1, ESProject PJKS (Denver)Date Collected 1/16/86

Client No. _____

Date Received 1/17/86

Laboratory Supervisor Approval: _____

Date Analyzed 1/29/86Johnny R. AdamsonQC Report No. 56528-11

Sample Matrix:

☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Bromodichloromethane	0.10	<10		15.69	
Bromoform	0.20	<10		21.24	
Bromomethane	1.18	<10		2.85	
Carbon tetrachloride	0.12	<4.0		15.47	
Chlorobenzene	0.25	<10		26.01	
Chloroethane	0.52	<10		4.51	
2-Chloroethylvinyl ether	0.13	<10		19.49	
Chloroform	0.05	<10		13.01	
Chloromethane	0.08	<10		1.95	
Dibromochloromethane	0.09	<10		18.68	
1,2-Dichlorobenzene	0.15	<10		60.1	
1,3-Dichlorobenzene	0.32	<10		42.9	
1,4-Dichlorobenzene	0.24	<10		37.3	
Dichlorodifluoromethane	1.81	<10		3.54	
1,1-Dichloroethane	0.07	<10		11.67	
1,2-Dichloroethane	0.03	<0.1		13.55	
1,1-Dichloroethene	0.13	<10		10.31	
trans-1,2-Dichloroethene	0.10	<10		12.35	
1,2-Dichloropropane	0.08	<10		17.19	
cis-1,3-Dichloropropene	0.20	<10		18.68	
trans-1,3-Dichloropropene	0.10	<10		17.24	
Methylene chloride	0.25	<4.0		7.50	
1,1,2,2-Tetrachloroethane	0.03	<10		23.47	
Tetrachloroethene	0.03	<4.0		23.47	
1,1,1-Trichloroethane	0.03	<10		14.76	
1,1,2-Trichloroethane	0.02	<10		18.68	
Trichloroethene	0.12	<1.0		17.91	
Trichlorofluoromethane	0.01	<10		8.58	
Vinyl chloride	0.18	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1131Client U.S. Air ForceField Sample No. 10-MW-8, GW-1, ESProject PJKS (Denver)Date Collected 1/15/86Client No. Date Received 1/16/86Laboratory Supervisor Approval: Date Analyzed 1/29/86Johnny R. AdamsQC Report No. 56528-11

Sample Matrix:

/X/ Water (ug/L)Dilution Factor / Soil (ug/g) (ug/Kg)*Moisture / Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Bromodichloromethane	0.10	<10		15.69	
Bromoform	0.20	<10		21.24	
Bromomethane	1.18	<10		2.85	
Carbon tetrachloride	0.12	<4.0		15.47	
Chlorobenzene	0.25	<10		26.01	
Chloroethane	0.52	<10		4.51	
2-Chloroethylvinyl ether	0.13	<10		19.49	
Chloroform	0.05	<10		13.01	
Chloromethane	0.08	<10		-1.95	
Dibromochloromethane	0.09	<10		18.68	
1,2-Dichlorobenzene	0.15	<10		60.1	
1,3-Dichlorobenzene	0.32	<10		42.9	
1,4-Dichlorobenzene	0.24	<10		37.3	
Dichlorodifluoromethane	1.81	<10		3.54	
1,1-Dichloroethane	0.07	<10		11.67	
1,2-Dichloroethane	0.03	<0.1		13.55	
1,1-Dichloroethene	0.13	<10		10.31	
trans-1,2-Dichloroethene	0.10	38.2	<0.10	12.35	11.93
1,2-Dichloropropane	0.08	<10		17.19	
cis-1,3-Dichloropropene	0.20	<10		18.68	
trans-1,3-Dichloropropene	0.10	<10		17.24	
Methylene chloride	0.25	<4.0		7.50	
1,1,2,2-Tetrachloroethane	0.03	<10		23.47	
Tetrachloroethene	0.03	<4.0		23.47	
1,1,1-Trichloroethane	0.03	<10		14.76	
1,1,2-Trichloroethane	0.02	<10		18.68	
Trichloroethene	0.12	433	<0.12	17.91	9.61
Trichlorofluoromethane	0.01	<10		8.58	
Vinyl chloride	0.18	<10		3.54	

* If % moisture is reported, results are presented on a dry-weight basis.

note 1: Due to interference observed on column 1, the quantitation obtained on column 2 is the correct value.

Purgeable Halocarbons
EPA Method 601ES Job No. 56528Lab Sample No. 1-86-11B2Client U.S. Air ForceField Sample No. Trip flaskProject PJKS (Denver)

Date Collected _____

Client No. _____

Date Received 1/17/86

Laboratory Supervisor Approval: _____

Date Analyzed 1/30/86Johnny R. AdamsQC Report No. 56528-11

Sample Matrix:

☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<1.0		17.91		
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1181Client U.S. Air ForceField Sample No. field blankProject PJKS (Denver)Date Collected Client No. Date Received 1/17/86Laboratory Supervisor Approval: Date Analyzed 1/30/86Johnny R. AdamsQC Report No. 56528-11

Sample Matrix

☒ /X/ Water (ug/L)Dilution Factor ☐ / / Soil (ug/g) (ug/Kg)*Moisture ☐ / / Other

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<1.0		17.91		
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-66-1126Client U.S. Air ForceField Sample No. 1-MW-1, GW-1, ESProject PJKS (Denver)Date Collected 1/14/86Client No. Date Received 1/15/86Laboratory Supervisor Approval: Date Analyzed 1/29/86Johnny R. AdamsQC Report No. 56528-10Sample Matrix: ☒ Water (ug/L)Dilution Factor ☐ Soil (ug/g) (ug/Kg)*Moisture %☐ Other

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		27.93		
1,3-Dichlorobenzene	0.4	<10		26.40		
1,4-Dichlorobenzene	0.3	<10		22.51		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		
<i>methyl ethyl ketone</i>	<i>1.1</i>	<i>105</i>	<i>133</i>	<i>1.22</i>	<i>13.3</i>	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 1-86-1127
Field Sample No. 1-MW-2, GW-1, ES
Date Collected 1/14/86
Date Received 1/15/86
Date Analyzed 1/29/86

Johnny R. Adamsen

QC Report No. 56528-10

Sample Matrix

☒ / Water (ug/L)

Dilution Factor

☐ / Soil (ug/g) (ug/Kg)

*Moisture %

☐ / Other

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		27.93		
1,3-Dichlorobenzene	0.4	<10		26.40		
1,4-Dichlorobenzene	0.3	<10		22.51		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		
<i>methyl ethyl ketone</i>	<i>1.1</i>	<i><10</i>		<i>4.22</i>		

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1130Client U.S. Air ForceField Sample No. 2-MW-3, GW-1, ESProject PJKS (Denver)Date Collected 1/15/86

Client No. _____

Date Received 1/16/86

Laboratory Supervisor Approval: _____

Date Analyzed 1/29/86Johnny R. AdamsenQC Report No. 56528-10

Sample Matrix:

☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____

☐ Other _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		27.93		
1,3-Dichlorobenzene	0.4	<10		26.40		
1,4-Dichlorobenzene	0.3	<10		22.51		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		
<u>methyl ethyl ketone</u>	<u>1.1</u>	<u><10</u>		<u>1.22</u>		

* If * moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 1-86-1178
Field Sample No. 4-MW-4, GW-1, ES
Date Collected 1/16/86
Date Received 1/17/86
Date Analyzed 1/29/86

Johnny R. Adams
Sample Matrix

QC Report No. 56528-10

☒ Water (ug/L)

Dilution Factor

☐ Soil (ug/g) (ug/Kg)

*Moisture %

☐ Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	0.2	<0.7		2.26	
Chlorobenzene	0.2	<10		16.46	
1,2-Dichlorobenzene	0.4	<10		27.93	
1,3-Dichlorobenzene	0.4	<10		26.40	
1,4-Dichlorobenzene	0.3	<10		22.51	
Ethylbenzene	0.2	<10		-7.18	
Toluene	0.2	<10		5.47	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 1-86-1179
Field Sample No. 4-MW-5, 6W-1, ES
Date Collected 1/16/86
Date Received 1/17/86
Date Analyzed 1/29/86

Johnny R. Adams
Sample Matrix

QC Report No. 56528-10

☒ / Water (ug/L)

Dilution Factor

☐ / Soil (ug/g) (ug/Kg)

*Moisture %

☐ / Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	0.2	<0.7		2.26	
Chlorobenzene	0.2	<10		16.46	
1,2-Dichlorobenzene	0.4	<10		27.93	
1,3-Dichlorobenzene	0.4	<10		26.40	
1,4-Dichlorobenzene	0.3	<10		22.51	
Ethylbenzene	0.2	<10		7.18	
Toluene	0.2	<10		5.47	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1133Client U.S. Air ForceField Sample No. 4-MW-6, 6W-2, ESProject PJKS (Denver)Date Collected 1/15/86

Client No. _____

Date Received 1/16/86

Laboratory Supervisor Approval: _____

Date Analyzed 1/29/86

Johnny R. Adamsen
Sample Matrix

QC Report No. 56528-10☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____

☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	0.2	<0.7		2.26	
Chlorobenzene	0.2	<10		16.46	
1,2-Dichlorobenzene	0.4	<10		27.93	
1,3-Dichlorobenzene	0.4	<10		26.40	
1,4-Dichlorobenzene	0.3	<10		22.51	
Ethylbenzene	0.2	<10		7.18	
Toluene	0.2	<10		5.47	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 1-86-1132
Field Sample No. 4-MW-6, GW-1, ES
Date Collected 1/15/86
Date Received 1/16/86
Date Analyzed 1/29/86

Johnny R. Adams
Sample Matrix:

QC Report No. 56528-10

/X/ Water (ug/L)

Dilution Factor

/ Soil (ug/g) (ug/Kg)

*Moisture %

/ Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	0.2	<0.7		2.26	
Chlorobenzene	0.2	<10		16.46	
1,2-Dichlorobenzene	0.4	<10		27.93	
1,3-Dichlorobenzene	0.4	<10		26.40	
1,4-Dichlorobenzene	0.3	<10		22.51	
Ethylbenzene	0.2	<10		7.18	
Toluene	0.2	<10		5.47	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1177Client U.S. Air ForceField Sample No. 2-MW-7, GW-1, ESProject PJKS (Denver)Date Collected 1/16/86Client No. Date Received 1/17/86Laboratory Supervisor Approval: Date Analyzed 1/29/86Johnny R. AdamsQC Report No. 56528-10

Sample Matrix:

☒ Water (ug/L)Dilution Factor ☐ Soil (ug/g) (ug/Kg)*Moisture %☐ Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	0.2	<0.7		2.26	
Chlorobenzene	0.2	<10		16.46	
1,2-Dichlorobenzene	0.4	<10		27.93	
1,3-Dichlorobenzene	0.4	<10		26.40	
1,4-Dichlorobenzene	0.3	<10		22.51	
Ethylbenzene	0.2	<10		7.18	
Toluene	0.2	<10		5.47	
<i>methyl ethyl ketone</i>	<i>1.1</i>	<i><10</i>		<i>1.22</i>	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1131Client U.S. Air ForceField Sample No. 10-MW-8, GW-1, ESProject PJKS (Denver)Date Collected 1/15/86Client No. Date Received 1/16/86

Laboratory Supervisor Approval:

Date Analyzed 1/29/86Johnny R. AdamsQC Report No. 56528-10Sample Matrix ☒ Water (ug/L)Dilution Factor ☐ Soil (ug/g) (ug/Kg)*Moisture %☐ Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	0.2	<0.7		2.26	
Chlorobenzene	0.2	<10		16.46	
1,2-Dichlorobenzene	0.4	<10		27.93	
1,3-Dichlorobenzene	0.4	<10		26.40	
1,4-Dichlorobenzene	0.3	<10		22.51	
Ethylbenzene	0.2	<10		7.18	
Toluene	0.2	<10		5.47	

* If % moisture is reported, results are presented on a dry-weight basis.

Purgeable Aromatics
EPA Method 602ES Job No. 56528Lab Sample No. 1-86-1180Client U.S. Air ForceField Sample No. 1-MW-2, GW-2, ESProject PJKS (Denver)Date Collected 1/16/86Client No. Date Received 1/17/86Laboratory Supervisor Approval: Date Analyzed 1/30/86Johnny R. AdamsenQC Report No. 56528-10Sample Matrix ☒ Water (ug/L)Dilution Factor ☐ Soil (ug/g) (ug/Kg)*Moisture ☐ Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	0.2	<0.7		2.26	
Chlorobenzene	0.2	<10		16.46	
1,2-Dichlorobenzene	0.4	<10		27.93	
1,3-Dichlorobenzene	0.4	<10		26.40	
1,4-Dichlorobenzene	0.3	<10		22.51	
Ethylbenzene	0.2	<10		7.18	
Toluene	0.2	<10		5.47	

* If % moisture is reported, results are presented on a dry-weight basis.

ES Job No. 56528Lab Sample No. 1-86-1181Client U.S. Air ForceField Sample No. field blankProject PJKS (Denver)Date Collected 1/16/86Client No. Date Received 1/17/86Laboratory Supervisor Approval: Date Analyzed 1/30/86Johnny R. AdamsonQC Report No. 56528-10Sample Matrix: ☒ Water (ug/L)Dilution Factor ☐ Soil (ug/g) (ug/Kg)*Moisture %☐ Other

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	0.2	<0.7		2.26	
Chlorobenzene	0.2	<10		16.46	
1,2-Dichlorobenzene	0.4	<10		27.93	
1,3-Dichlorobenzene	0.4	<10		26.40	
1,4-Dichlorobenzene	0.3	<10		22.51	
Ethylbenzene	0.2	<10		7.18	
Toluene	0.2	<10		5.47	

* If % moisture is reported, results are presented on a dry-weight basis.

Purgeable Aromatics

EPA Method 602

ES Job No. 56528Lab Sample No. 1-86-1182Client U.S. Air ForceField Sample No. Trip blankProject PJKS (Denver)Date Collected 1-16-86

Client No. _____

Date Received 1/17/86

Laboratory Supervisor Approval:

Date Analyzed 1/30/86Johnny R. AdamsQC Report No. 56528-10

Sample Matrix:

☒ Water (ug/L)

Dilution Factor _____

☐ Soil (ug/g) (ug/Kg)

*Moisture _____

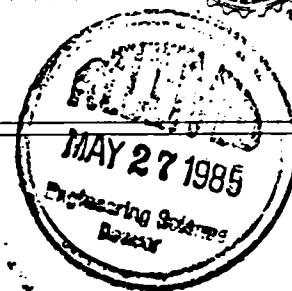
☐ Other _____

Compound	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzene	0.2	<0.7		2.26	
Chlorobenzene	0.2	<10		16.46	
1,2-Dichlorobenzene	0.4	<10		27.93	
1,3-Dichlorobenzene	0.4	<10		26.40	
1,4-Dichlorobenzene	0.3	<10		22.51	
Ethylbenzene	0.2	<10		7.18	
Toluene	0.2	<10		5.47	

* If % moisture is reported, results are presented on a dry-weight basis.

IT Results for 601 and 602 Methods
Dated 4/15/86


2nd Resample

CERTIFICATE OF ANALYSIS

Prepared For: **Engineering Science
1100 Stout St., Suite 1100
Denver, CO 80204**

Date: **May 21, 1986**

Attn: **Lisa Korner**

Page 1 of 18

Date Received	P.O. Number	Job Number
April 12, 1986	56528	36528/rjc

Six (6) soil samples:

<u>Sample Number</u>	<u>Date</u>	<u>Time</u>
PJKS, 1-SW-2, IT	4-11-86	9:30
PJKS, 1-MW-1, GW-2, IT	4-11-86	10:30
PJKS, 10-MW-8, GW-2, IT	4-11-86	12:00
PJKS, 5-MW-6, GW-3, IT	4-11-86	2:15
PJKS, 5-MW-6, GW-4, IT	4-11-86	2:15
PJKS, 4-MW-4, GW-2, IT	4-11-86	3:15

The samples were analyzed for Purgeable Halocarbons using a Tekmar liquid sample concentrator and a Varian 6000 gas chromatograph equipped with a Hall electrolytic conductivity detector. The samples were prepared according to EPA Method 8010. 601. 042

Second column confirmations not done due to insufficient sample..

The samples were also analyzed for Aromatic Volatile organic compounds using a Tekmar liquid sample concentrator and a Varian 6000 gas chromatograph equipped with a photoionization detector. The samples were prepared according to EPA Method 8020. The results are listed on the following summary sheets. 602. 037

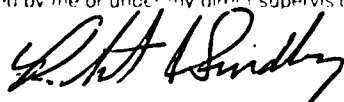
In addition, sample 1-SW-2 was analyzed for Methyl Ethyl Ketone using a Hewlett Packard 5890 gas chromatograph equipped with a photoionization detector. The result is as follows:

Methyl Ethyl Ketone (ug/l)


1-SW-2

TR<1

I certify that this report truly represents the findings of work performed by me or under my direct supervision.


Robert I. Sundberg
Groupleader

Reviewed and Approved


Richard L. Merrell
Laboratory Director

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56428
Client _____
Project PJKS Air Force, Denver, CO
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36528-10
Field Sample No. PJKS, 1-MW-1, GW-2, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8010-21

Sample Matrix:

☒ Water (ug/L)☐ Soil☐ Other _____Dilution Factor N/A

*Moisture _____ %

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1	ND<1	---	---	---	
Bis(2-Chloroethoxy)methane	1	ND<1	---	---	---	
Bis(2-chloroisopropyl)ether	1	ND<1	---	---	---	
Bromobenzene	1	ND<1	---	---	---	
Bromodichloromethane	1	ND<1	---	---	---	
Bromoform	1	ND<1	---	---	---	
Bromomethane	1	ND<1	---	---	---	
Carbon tetrachloride	1	ND<1	---	---	---	
Chloroacetaldehyde	1	ND<1	---	---	---	
Chloral	1	ND<1	---	---	---	
Chlorobenzene	1	ND<1	---	---	---	
Chloroethane	1	ND<1	---	---	---	
Chloroform	1	ND<1	---	---	---	
1-Chlorohexane	1	ND<1	---	---	---	
2-Chloroethyl vinyl ether	1	ND<1	---	---	---	
Chloromethane	1	ND<1	---	---	---	
Chloromethyl methyl ether	1	ND<1	---	---	---	
Chlorotoluene	1	ND<1	---	---	---	
Dibromochloromethane	1	ND<1	---	---	---	

Continued

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Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 1-MW-1, GW-2, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	ND<1	---	---	---	
1,2-Dichlorobenzene	1	ND<1	---	---	---	
1,3-Dichlorobenzene	1	ND<1	---	---	---	
1,4-Dichlorobenzene	1	ND<1	---	---	---	
Dichlorodifluoromethane	1	ND<1	---	---	---	
1,1-Dichloroethane	1	ND<1	---	---	---	
1,2-Dichloroethane	1	ND<1	---	---	---	
1,1-Dichloroethylene	1	ND<1	---	---	---	
trans-1,2-dichloroethylene	1	29	---	11.3	---	
Dichloromethane	1	ND<1	---	---	---	
1,2-Dichloropropane	1	ND<1	---	---	---	
1,3-Dichloropropylene	1	ND<1	---	---	---	
1,1,2,2-Tetrachloroethane	1	ND<1	---	---	---	
1,1,1,2-Tetrachloroethane	1	ND<1	---	---	---	
Tetrachloroethylene	1	ND<1	---	---	---	
1,1,1-Trichloroethane	1	36	---	13.8	---	
1,1,2-Trichloroethane	1	ND<1	---	---	---	
Trichloroethylene	1	89	---	16.1	---	
Trichlorofluoromethane	1	ND<1	---	---	---	
Trichloropropane	1	ND<1	---	---	---	
Vinyl chloride	1	ND<1	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.



INTERNATIONAL
TECHNOLOGY
CORPORATION

ANALYTICAL SERVICES

17605 Fabrica Way • Cerritos California 90701 • 213-921-9831 / 714-523-9200



CERTIFICATE OF ANALYSIS

Prepared For: **Engineering Science**
1100 Stout St., Suite 1100
Denver, CO 80204

Date: **April 29, 1986**

Attn: **Lisa Korner**

Date Received **April 11, 1986**

P.O. Number **56528**

Job Number **36516/rjc**

Three (3) soil samples:

<u>Sample Number</u>	<u>Date</u>	<u>Time</u>
PJKS, 2-MW-3, IT	4/10/86	2:25
PJKS, 1-MW-2, IT	4/10/86	3:45
PJKS, 5-MW-5, IT	4/10/86	5:00

The samples were analyzed for purgeable halocarbons using a Tekmar liquid sample concentrator and a Varian 6000 gas chromatograph equipped with a Hall electrolytic conductivity detector. The samples were prepared according to EPA Method 601.

The samples were also analyzed for Aromatic volatile organic compounds using a Tekmar liquid sample concentrator and a Varian 6000 gas chromatograph equipped with a photoionization detector. The samples were prepared according to EPA Method 602. The results are listed on the following summary sheets.

A Quality Control Spike could not be performed due to insufficient sample amount.

I certify that this report truly represents the findings of
work performed by me, under my direct supervision.

Robert I. Sundberg
Robert I. Sundberg
Group Leader

Reviewed and Approved

Richard L. Merrell
Richard L. Merrell
Laboratory Director

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56528
Client
Project PJKS Airforce Denver CO.
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36516-6
Field Sample No. PJKS, 1-MW-2, IT
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-15-86
QC Report No.

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other

Dilution Factor N/A

*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 1-MW-2, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	1.5	---	10.8	---	
1,2-Dichloroethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	77	---	11.4	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	10	---	13.9	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	62	---	16.8	---	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56528
Client _____
Project PJKS Airforce Denver CO.
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36516-9
Field Sample No. PJKS, 2-MW-3, IT
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-15-86
QC Report No. _____

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other _____

Dilution Factor 1:50

*Moisture _____ %

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	150	---	20.3	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 2-MW-3, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	ND<1.0	---	---	---	
1,2-Dichloroethane	1.0	230	---	12.4	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	500	---	11.4	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	430	---	13.9	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	1200	---	16.8	---	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56428
Client _____
Project PJKS Air Force, Denver, CO
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36528-12
Field Sample No. PJKS, 4-MW-4, GW-2, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8010-21

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other _____

Dilution Factor N/A

*Moisture _____ %

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1	ND<1	---	---	---	
Bis(2-Chloroethoxy)methane	1	ND<1	---	---	---	
Bis(2-chloroisopropyl)ether	1	ND<1	---	---	---	
Bromobenzene	1	ND<1	---	---	---	
Bromodichloromethane	1	4	---	14.9	---	
Bromoform	1	ND<1	---	---	---	
Bromomethane	1	ND<1	---	---	---	
Carbon tetrachloride	1	ND<1	---	---	---	
Chloroacetaldehyde	1	ND<1	---	---	---	
Chloral	1	ND<1	---	---	---	
Chlorobenzene	1	ND<1	---	---	---	
Chloroethane	1	ND<1	---	---	---	
Chloroform	1	ND<1	---	---	---	
1-Chlorohexane	1	ND<1	---	---	---	
2-Chloroethyl vinyl ether	1	ND<1	---	---	---	
Chloromethane	1	ND<1	---	---	---	
Chloromethyl methyl ether	1	ND<1	---	---	---	
Chlorotoluene	1	ND<1	---	---	---	
Dibromochloromethane	1	ND<1	---	---	---	

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 4-MW-4, GW-2, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	ND<1	---	---	---	
1,2-Dichlorobenzene	1	ND<1	---	---	---	
1,3-Dichlorobenzene	1	ND<1	---	---	---	
1,4-Dichlorobenzene	1	ND<1	---	---	---	
Dichlorodifluoromethane	1	ND<1	---	---	---	
1,1-Dichloroethane	1	7	---	10.8	---	
1,2-Dichloroethane	1	ND<1	---	---	---	
1,1-Dichloroethylene	1	ND<1	---	---	---	
trans-1,2-dichloroethylene	1	180	---	11.3	---	
Dichloromethane	1	ND<1	---	---	---	
1,2-Dichloropropane	1	ND<1	---	---	---	
1,3-Dichloropropylene	1	ND<1	---	---	---	
1,1,2,2-Tetrachloroethane	1	ND<1	---	---	---	
1,1,1,2-Tetrachloroethane	1	ND<1	---	---	---	
Tetrachloroethylene	1	ND<1	---	---	---	
1,1,1-Trichloroethane	1	24	---	13.8	---	
1,1,2-Trichloroethane	1	ND<1	---	---	---	
Trichloroethylene	1	310	---	16.7	---	
Trichlorofluoromethane	1	ND<1	---	---	---	
Trichloropropane	1	ND<1	---	---	---	
Vinyl chloride	1	ND<1	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56528
Client _____
Project PJKS Airforce Denver CO.
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36516-8
Field Sample No. PJKS, 5-MW-5, IT
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-15-86
QC Report No. _____

Sample Matrix:

☒ / Water (ug/L)

☐ / Soil

☐ / Other _____

Dilution Factor N/A

*Moisture _____ %

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 5-MW-5, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	ND<1.0	---	---	---	
1,2-Dichloroethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	ND<1.0	---	---	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	ND<1.0	---	---	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	12	---	16.8	---	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56428

Client

Project PJKS Air Force, Denver, CO

Client No.

Laboratory Supervisor Approval:

Lab Sample No. 36528-13

Field Sample No. PJKS, 5-MW-6, GW-3, IT

Date Collected 4-11-86

Date Received 4-12-86

Date Analyzed 4-15-86

QC Report No. 8010-21

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other

Dilution Factor N/A

*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1	ND<1	---	---	---	
Bis(2-Chloroethoxy)methane	1	ND<1	---	---	---	
Bis(2-chloroisopropyl)ether	1	ND<1	---	---	---	
Bromobenzene	1	ND<1	---	---	---	
Bromodichloromethane	1	ND<1	---	---	---	
Bromoform	1	ND<1	---	---	---	
Bromomethane	1	ND<1	---	---	---	
Carbon tetrachloride	1	ND<1	---	---	---	
Chloroacetaldehyde	1	ND<1	---	---	---	
Chloral	1	ND<1	---	---	---	
Chlorobenzene	1	ND<1	---	---	---	
Chloroethane	1	ND<1	---	---	---	
Chloroform	1	ND<1	---	---	---	
1-Chlorohexane	1	ND<1	---	---	---	
2-Chloroethyl vinyl ether	1	ND<1	---	---	---	
Chloromethane	1	ND<1	---	---	---	
Chloromethyl methyl ether	1	ND<1	---	---	---	
Chlorotoluene	1	ND<1	---	---	---	
Dibromochloromethane	1	ND<1	---	---	---	

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 5-MW-6, GW-3, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	ND<1	---	---	---	
1,2-Dichlorobenzene	1	ND<1	---	---	---	
1,3-Dichlorobenzene	1	ND<1	---	---	---	
1,4-Dichlorobenzene	1	ND<1	---	---	---	
Dichlorodifluoromethane	1	ND<1	---	---	---	
1,1-Dichloroethane	1	2	---	10.8	---	
1,2-Dichloroethane	1	ND<1	---	---	---	
1,1-Dichloroethylene	1	ND<1	---	---	---	
trans-1,2-dichloroethylene	1	530	---	11.3	---	
Dichloromethane	1	ND<1	---	---	---	
1,2-Dichloropropane	1	ND<1	---	---	---	
1,3-Dichloropropylene	1	ND<1	---	---	---	
1,1,2,2-Tetrachloroethane	1	ND<1	---	---	---	
1,1,1,2-Tetrachloroethane	1	ND<1	---	---	---	
Tetrachloroethylene	1	ND<1	---	---	---	
1,1,1-Trichloroethane	1	ND<1	---	---	---	
1,1,2-Trichloroethane	1	ND<1	---	---	---	
Trichloroethylene	1	41	---	16.8	---	
Trichlorofluoromethane	1	ND<1	---	---	---	
Trichloropropane	1	ND<1	---	---	---	
Vinyl chloride	1	ND<1	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56428
Client
Project PJKS Air Force, Denver, CO
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36528-14 Duplicate
Field Sample No. PJKS, 5-MW-6, GW-3, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8010-21

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other

Dilution Factor N/A

*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1	ND<1	---	---	---	
Bis(2-Chloroethoxy)methane	1	ND<1	---	---	---	
Bis(2-chloroisopropyl)ether	1	ND<1	---	---	---	
Bromobenzene	1	ND<1	---	---	---	
Bromodichloromethane	1	ND<1	---	---	---	
Bromoform	1	ND<1	---	---	---	
Bromomethane	1	ND<1	---	---	---	
Carbon tetrachloride	1	ND<1	---	---	---	
Chloroacetaldehyde	1	ND<1	---	---	---	
Chloral	1	ND<1	---	---	---	
Chlorobenzene	1	ND<1	---	---	---	
Chloroethane	1	ND<1	---	---	---	
Chloroform	1	ND<1	---	---	---	
1-Chlorohexane	1	ND<1	---	---	---	
2-Chloroethyl vinyl ether	1	ND<1	---	---	---	
Chloromethane	1	ND<1	---	---	---	
Chloromethyl methyl ether	1	ND<1	---	---	---	
Chlorotoluene	1	ND<1	---	---	---	
Dibromochloromethane	1	ND<1	---	---	---	

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 5-MW-6, GW-3, IT Duplicate

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	ND<1	---	---	---	
1,2-Dichlorobenzene	1	ND<1	---	---	---	
1,3-Dichlorobenzene	1	ND<1	---	---	---	
1,4-Dichlorobenzene	1	ND<1	---	---	---	
Dichlorodifluoromethane	1	ND<1	---	---	---	
1,1-Dichloroethane	1	2	---	10.8	---	
1,2-Dichloroethane	1	ND<1	---	---	---	
1,1-Dichloroethylene	1	ND<1	---	---	---	
trans-1,2-dichloroethylene	1	460	---	11.3	---	
Dichloromethane	1	ND<1	---	---	---	
1,2-Dichloropropane	1	ND<1	---	---	---	
1,3-Dichloropropylene	1	ND<1	---	---	---	
1,1,2,2-Tetrachloroethane	1	ND<1	---	---	---	
1,1,1,2-Tetrachloroethane	1	ND<1	---	---	---	
Tetrachloroethylene	1	ND<1	---	---	---	
1,1,1-Trichloroethane	1	2	---	13.9	---	
1,1,2-Trichloroethane	1	ND<1	---	---	---	
Trichloroethylene	1	27	---	16.8	---	
Trichlorofluoromethane	1	ND<1	---	---	---	
Trichloropropane	1	ND<1	---	---	---	
Vinyl chloride	1	ND<1	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56428

Client _____

Project PJKS Air Force, Denver, CO

Client No. _____

Laboratory Supervisor Approval:

Lab Sample No. 36528-15
Field Sample No. PJKS, 5-MW-6, GW-4, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8010-21

Sample Matrix:

/X/ Water (ug/L)

Soil

/ / Other

Dilution Factor N/A

***Moisture** %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1	ND<1	---	---	---	
Bis(2-Chloroethoxy)methane	1	ND<1	---	---	---	
Bis(2-chloroisopropyl)ether	1	ND<1	---	---	---	
Bromobenzene	1	ND<1	---	---	---	
Bromodichloromethane	1	ND<1	---	---	---	
Bromoform	1	ND<1	---	---	---	
Bromomethane	1	ND<1	---	---	---	
Carbon tetrachloride	1	ND<1	---	---	---	
Chloroacetaldehyde	1	ND<1	---	---	---	
Chloral	1	ND<1	---	---	---	
Chlorobenzene	1	ND<1	---	---	---	
Chloroethane	1	ND<1	---	---	---	
Chloroform	1	ND<1	---	---	---	
1-Chlorohexane	1	ND<1	---	---	---	
2-Chloroethyl vinyl ether	1	ND<1	---	---	---	
Chloromethane	1	ND<1	---	---	---	
Chloromethyl methyl ether	1	ND<1	---	---	---	
Chlorotoluene	1	ND<1	---	---	---	
Dibromochloromethane	1	ND<1	---	---	---	

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 5-MW-6, GW-4, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	ND<1	---	---	---	
1,2-Dichlorobenzene	1	ND<1	---	---	---	
1,3-Dichlorobenzene	1	ND<1	---	---	---	
1,4-Dichlorobenzene	1	ND<1	---	---	---	
Dichlorodifluoromethane	1	ND<1	---	---	---	
1,1-Dichloroethane	1	3	---	10.9	---	
1,2-Dichloroethane	1	ND<1	---	---	---	
1,1-Dichloroethylene	1	ND<1	---	---	---	
trans-1,2-dichloroethylene	1	600	---	11.3	---	
Dichloromethane	1	ND<1	---	---	---	
1,2-Dichloropropane	1	ND<1	---	---	---	
1,3-Dichloropropylene	1	ND<1	---	---	---	
1,1,2,2-Tetrachloroethane	1	ND<1	---	---	---	
1,1,1,2-Tetrachloroethane	1	ND<1	---	---	---	
Tetrachloroethylene	1	ND<1	---	---	---	
1,1,1-Trichloroethane	1	3	---	14.0	---	
1,1,2-Trichloroethane	1	ND<1	---	---	---	
Trichloroethylene	1	36	---	16.8	---	
Trichlorofluoromethane	1	ND<1	---	---	---	
Trichloropropane	1	ND<1	---	---	---	
Vinyl chloride	1	ND<1	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56428
Client _____
Project PJKS Air Force, Denver, CO
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36528-11
Field Sample No. PJKS, 10-MW-8, GW-2, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8010-21

Sample Matrix:

☒ Water (ug/L)☐ Soil☐ Other _____Dilution Factor N/A

*Moisture _____ %

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1	ND<1	---	---	---	
Bis(2-Chloroethoxy)methane	1	ND<1	---	---	---	
Bis(2-chloroisopropyl)ether	1	ND<1	---	---	---	
Bromobenzene	1	ND<1	---	---	---	
Bromodichloromethane	1	ND<1	---	---	---	
Bromoform	1	ND<1	---	---	---	
Bromomethane	1	ND<1	---	---	---	
Carbon tetrachloride	1	ND<1	---	---	---	
Chloroacetaldehyde	1	ND<1	---	---	---	
Chloral	1	ND<1	---	---	---	
Chlorobenzene	1	ND<1	---	---	---	
Chloroethane	1	ND<1	---	---	---	
Chloroform	1	ND<1	---	---	---	
1-Chlorohexane	1	ND<1	---	---	---	
2-Chloroethyl vinyl ether	1	ND<1	---	---	---	
Chloromethane	1	ND<1	---	---	---	
Chloromethyl methyl ether	1	ND<1	---	---	---	
Chlorotoluene	1	ND<1	---	---	---	
Dibromochloromethane	1	ND<1	---	---	---	

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 10-MW-8, GW-2, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	ND<1	---	---	---	
1,2-Dichlorobenzene	1	ND<1	---	---	---	
1,3-Dichlorobenzene	1	ND<1	---	---	---	
1,4-Dichlorobenzene	1	ND<1	---	---	---	
Dichlorodifluoromethane	1	ND<1	---	---	---	
1,1-Dichloroethane	1	TR<1	---	10.9	---	
1,2-Dichloroethane	1	9	---	12.3	---	
1,1-Dichloroethylene	1	ND<1	---	---	---	
trans-1,2-dichloroethylene	1	65	---	13.8	---	
Dichloromethane	1	ND<1	---	---	---	
1,2-Dichloropropane	1	ND<1	---	---	---	
1,3-Dichloropropylene	1	ND<1	---	---	---	
1,1,2,2-Tetrachloroethane	1	ND<1	---	---	---	
1,1,1,2-Tetrachloroethane	1	ND<1	---	---	---	
Tetrachloroethylene	1	ND<1	---	---	---	
1,1,1-Trichloroethane	1	ND<1	---	---	---	
1,1,2-Trichloroethane	1	ND<1	---	---	---	
Trichloroethylene	1	400	---	16.7	---	
Trichlorofluoromethane	1	ND<1	---	---	---	
Trichloropropane	1	ND<1	---	---	---	
Vinyl chloride	1	ND<1	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56528
Client _____
Project PJKS Air Force Denver CO.
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36516-4
Field Sample No. PJKS, 1-MW-2, IT
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-15-86
QC Report No. _____

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other _____

Dilution Factor NA

*Moisture _____ %

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56528
Client _____
Project PJKS Air Force Denver CO.
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36516-6
Field Sample No. PJKS, 2-MW-3, IT
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-15-86
QC Report No. _____

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other _____

Dilution Factor NA

*Moisture _____%

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56528
Client _____
Project PJKS Air Force Denver CO.
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36516-6
Field Sample No. PJKS, 5-MW-5, IT
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-15-86
QC Report No. _____

Sample Matrix:

☒ / Water (ug/L)☐ / Soil☐ / Other _____Dilution Factor NA

*Moisture _____ %

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.



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ANALYTICAL SERVICES

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CERTIFICATE OF ANALYSIS

Prepared For: Engineering Science
1100 Stout St., Suite 1100
Denver CO 80204

Date: May 16, 1986

Attn: Lisa Korner

1 of 37

Date Received: May 25, 1986

P O Number 56423

Job Number 36686/rjc

PARTIAL REPORT

Eleven (11) water samples.

<u>Sample Number</u>	<u>Date</u>	<u>Time</u>
PJKS, 5-MW-4, GW-3, IT	4-23-86	9:00
PJKS, 5-MW-5, GW-3, IT	4-23-86	10:00
PJKS, 4-MW-6, GW-5, IT	4-23-86	11:15
PJKS, 4-MW-6, GW-6, IT	4-23-86	11:15
PJKS, 2-MW-3, GW-3, IT	4-23-86	2:45
PJKS, Field Blank	4-23-86	4:00
PJKS, Trip Blank	4-23-86	4:00
PJKS, 1-MW-1, GW-3, IT	4-24-86	9:00
PJKS, 1-MW-2, GW-3, IT	4-24-86	10:15
PJKS, 1-SW-2, IT	4-24-86	11:15
PJKS, 10-MW-8, GW-3, IT	4-24-86	1:15

The samples were analyzed for semi-volatile organic contaminants using combined gas chromatography-mass spectrometry according to EPA Methods 625. Results for compounds on the EPA Hazardous Substances List are given on the enclosed summary sheets. No other semivolatile organic compounds were detected

The samples were analyzed for purgeable halocarbons using a Tekmar liquid sample concentrator and a Varian 6000 gas chromatograph equipped with a Hall electrolytic conductivity detector. The samples were prepared according to EPA Method 601.

The samples were also analyzed for aromatic volatile organic compounds using a Tekmar liquid sample concentrator and a Varian 6000 gas chromatograph equipped with a photoionization detector. The samples were prepared according to EPA Method 602. The results are listed on the following summary sheets.

I certify that this report truly represents the finding of
work performed by me or under my direct supervision.

Robert I. Sundberg
Group Leader

Reviewed and Approved

Richard L. Merrell
Laboratory Director

Accredited by the American Industrial Hygiene Association

L-364

GC/MS ORGANICS ANALYSIS DATA SHEET
 BASE/NEUTRAL AND ACID COMPOUNDS

SAMPLE IDENTIFICATION: 1-SW-1
 DATE ANALYZED: 04/30/86
 UNITS: UG/L

CAS # =====	COMPOUND =====	CONC =====
88-06-2	2, 4, 6-TRICHLOROPHENOL	2. ND
59-50-7	4-CHLORO-3-METHYLPHENOL	2. ND
95-57-8	2-CHLOROPHENOL	2. ND
120-33-2	2, 4-DICHLOROPHENOL	2. ND
105-67-9	2, 4-DIMETHYLPHENOL	2. ND
88-75-5	2-NITROPHENOL	2. ND
100-02-7	4-NITROPHENOL	2. ND
51-28-5	2, 4-DINITROPHENOL	2. ND
534-52-1	4, 6-DINITRO-2-METHYLPHENOL	2. ND
87-86-5	PENTACHLOROPHENOL	2. ND
108-95-2	PHENOL	2. ND
65-83-0	BENZOIC ACID	2. ND
95-48-7	2-METHYLPHENOL	2. ND
108-39-4	4-METHYLPHENOL	2. ND
95-95-4	2, 4, 5-TRICHLOROPHENOL	2. ND
83-32-9	ACENAPHTHENE	2. ND
120-82-1	1, 2, 4-TRICHLORO BENZENE	2. ND
118-74-1	HEXACHLORO BENZENE	2. ND
67-72-1	HEXACHLOROETHANE	2. ND
111-44-4	BIS(2-CHLOROETHYL)ETHER	2. ND
91-58-7	2-CHLORONAPHTHALENE	2. ND
95-50-1	1, 2-DICHLORO BENZENE	2. ND
541-73-1	1, 3-DICHLORO BENZENE	2. ND
106-46-7	1, 4-DICHLORO BENZENE	2. ND
91-94-1	3, 3'-DICHLORO BENZIDINE	2. ND
121-14-2	2, 4-DINITROTOLUENE	2. ND
606-20-2	2, 6-DINITROTOLUENE	2. ND
122-66-7	1, 2-DIPHENYLHYDRAZINE	2. ND
206-44-0	FLUORANTHENE	2. ND
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	2. ND
101-55-3	4-BROMOPHENYL PHENYL ETHER	2. ND
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	2. ND
111-91-1	BIS(2-CHLOROETHOXY)METHANE	2. ND
87-68-3	HEXACHLORO BUTADIENE	2. ND
77-47-4	HEXACHLOROCYCLOPENTADIENE	2. ND
78-59-1	ISOPHORONE	2. ND
91-20-3	NAPHTHALENE	2. ND
98-95-3	NITROBENZENE	2. ND
86-30-6	N-NITROSODIPHENYLAMINE	2. ND
621-64-7	N-NITROSODIPROPYLAMINE	2. ND
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	2. ND
85-68-7	BUTYL BENZYL PHTHALATE	2. ND
84-74-2	DI-N-BUTYL PHTHALATE	2. ND
117-84-0	DI-N-OCTYL PHTHALATE	2. ND
84-66-2	DIETHYL PHTHALATE	2. ND
131-11-3	DIMETHYL PHTHALATE	2. ND
56-55-3	BENZO(A)ANTHRACENE	2. ND
50-32-8	BENZO(A)PYRENE	2. ND
205-99-2	BENZO(B)FLUORANTHENE	2. ND
207-08-9	BENZO(K)FLUORANTHENE	2. ND

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET - PAGE 2
BASE/NEUTRAL AND ACID COMPOUNDS

SAMPLE IDENTIFICATION: 1-SW-1
DATE ANALYZED: 04/30/86
UNITS: UG/L

CAS #	COMPOUND	CONC
=====	=====	=====
218-01-9	CHRYSENE	2. ND
208-96-8	ACENAPHTHYLENE	2. ND
120-12-7	ANTHRACENE	2. ND
191-24-2	BENZO(GHI)PERYLENE	2. ND
86-73-7	FLUORENE	2. ND
85-01-8	PHENANTHRENE	2. ND
53-70-3	DIBENZO(A, H)ANTHRACENE	2. ND
193-39-5	INDENO(1, 2, 3-CD)PYRENE	2. ND
129-00-0	PYRENE	2. ND
100-51-6	BENZYL ALCOHOL	2. ND
106-47-8	4-CHLORDANILINE	2. ND
132-64-9	DIBENZOFURAN	2. ND
91-57-6	2-METHYLNAPHTHALENE	2. ND
88-74-4	2-NITROANILINE	2. ND
99-09-2	3-NITROANILINE	2. ND
100-01-6	4-NITROANILINE	2. ND

ND - THIS COMPOUND WAS NOT DETECTED; THE LIMIT OF DETECTION FOR THIS COMPOUND IS STATED TO THE LEFT OF THE ND SPECIFIER.

TR - TRACE, THIS COMPOUND WAS PRESENT, BUT WAS BELOW THE LEVEL AT WHICH THE CONCENTRATION COULD ACCURATELY BE DETERMINED. THE APPROXIMATE CONCENTRATION IS REPORTED FOR YOUR REFERENCE.

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56428
Client _____
Project PJKS - Air Force, Denver, CO
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36528-7
Field Sample No. PJKS, 1-MW-1, GW-2, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8020-19

Sample Matrix:

☒ Water (ug/L)☐ Soil☐ Other _____Dilution Factor N/A

*Moisture _____ %

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56428
Client _____
Project PJKS - Air Force, Denver, CO
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36528-9
Field Sample No. PJKS, 4-MW-4, GW-2, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8020-19

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other _____

Dilution Factor N/A

*Moisture _____%

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

4-MW-6

ES Job No. 56428
Client _____
Project PJKS - Air Force, Denver, CO
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36528-10
Field Sample No. PJKS, 5-MW-6, GW-4, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8020-19

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other _____

Dilution Factor N/A

*Moisture _____%

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	1.1	---	14.6	---	
1,3-Dichlorobenzene	1.0	TR<1.0	---	13.0	---	
1,4-Dichlorobenzene	1.0	1.7	---	12.5	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56428
Client _____
Project PJKS - Air Force, Denver, CO
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36528-11
Field Sample No. PJKS, 5-MW-6, GW-3, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8020-19

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other _____

Dilution Factor N/A

*Moisture _____%

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	TR<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	TR<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56428
Client _____
Project PJKS - Air Force, Denver, CO
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36528-8
Field Sample No. PJKS, 10-MW-8, GW-2, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8020-19

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other _____

Dilution Factor N/A

*Moisture _____ %

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

IT Results for 601 and 602 Methods
Dated 4/23/86 and 4/24/86

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423
Client _____
Project Air Force PJKS
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36686-19
Field Sample No. PJKS, 1-MW-1, GW-3, IT
Date Collected 4-24-86
Date Received 4-25-86
Date Analyzed 4-30-86
QC Report No. 601-28

Sample Matrix:

☒ Water (ug/L)☐ Soil☐ Other _____Dilution Factor N/A

*Moisture _____ %

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 1-MW-1, GW-3, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	1.8	---	10.3	---	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	1.2	---	9.2	---	
trans-1,2-dichloroethylene	1.0	ND<1.0	---	---	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	ND<1.0	---	---	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	130	125	16.4	12.8	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423
Client _____
Project Air Force PJKS
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36686-6
Field Sample No. PJKS, 1-MW-2, GW-3, ITT
Date Collected 4-24-86
Date Received 4-25-86
Date Analyzed 5-2-86
QC Report No. 601-28

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other _____

Dilution Factor N/A

*Moisture _____%

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 1-MW-2, GW-3, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	2.0	---	10.4	---	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	ND<1.0	---	---	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	1.2	---	21.9	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	1.2	---	21.9	---	
1,1,1-Trichloroethane	1.0	9.0	---	13.4	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	67.0	80	16.4	12.8	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423

Client

Project Air Force PJKS

Client No.

Laboratory Supervisor Approval:

Lab Sample No. 36686-18

Field Sample No. PJKS, 2-MW-3, GW-3, IT

Date Collected 4-23-86

Date Received 4-25-86

Date Analyzed 4-30-86

QC Report No. 601-28

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other

Dilution Factor N/A

*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 2-MW-3, GW-3, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	12.7	334	10.3	11.9	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	ND<1.0	---	---	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	ND<1.0	---	---	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	1110	841	16.4	12.7	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423

Client

Project Air Force PJKS

Client No.

Laboratory Supervisor Approval:

Lab Sample No. 36686-13

Field Sample No. PJKS, 5-MW-4, GW-3, IT

Date Collected 4-23-86

Date Received 4-25-86

Date Analyzed 4-30-86

QC Report No. 601-28

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other

Dilution Factor N/A

*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 5-MW-4, GW-3, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	11.5	18.7	10.3	12.0	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	36.2	<1.0	11.0	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	1.2	1.6	21.9	14.8	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	1.2	1.6	21.9	14.8	
1,1,1-Trichloroethane	1.0	28.6	12.4	13.4	12.4	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	67.0	80.5	16.4	12.8	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423

Client

Project Air Force PJKS

Client No.

Laboratory Supervisor Approval:

Lab Sample No. 36686-14

Field Sample No. PJKS, 5-MW-5, GW-3, IT

Date Collected 4-23-86

Date Received 4-25-86

Date Analyzed 4-30-86

QC Report No. 601-28

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other

Dilution Factor N/A

*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 5-MW-5, GW-3, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	ND<1.0	---	---	---	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	2.3	---	11.1	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	TR<1.0	---	---	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	ND<1.0	---	---	---	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423
Client _____
Project Air Force PJKS
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. \$ 36686-15, 36686-16
Field Sample No. PJKS, 4-MW-6, GW-5, IT
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 4-30-86
QC Report No. 601-28

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other _____

Dilution Factor N/A

*Moisture _____%

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

\$ - Different amounts of sample were used in analysis for quantitation purposes.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 4-MW-6, GW-5, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	4.0	---	10.3	---	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	1.9	---	9.3	---	
trans-1,2-dichloroethylene	1.0	290.0	4.0	11.0	9.1	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	ND<1.0	---	---	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	190.0	194	16.4	12.7	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423
Client _____
Project Air Force PJKS
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36686-17
Field Sample No. PJKS, 4-MW-6, GW-6, IT
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 4-30-86
QC Report No. 601-28

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other _____

Dilution Factor N/A

*Moisture _____

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 4-MW-6, GW-6, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	4.2	---	10.4	---	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	350	3.6	11.0	9.2	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	9.0	---	13.5	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	190	178	16.4	12.7	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-5
Field Sample No. PJKS, 10-MW-8, GW-3, IT
Date Collected 4-24-86
Date Received 4-25-86
Date Analyzed 5-2-86
QC Report No. 601-28

Sample Matrix:

☒ Water (ug/L)
☐ Soil
☐ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 10-MW-8, GW-3, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	ND<1.0	---	---	---	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	ND<1.0	---	---	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	18.0	<1.0	13.4	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	490	101	16.5	12.8	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423
Client _____
Project Air Force PJKS
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36686-20
Field Sample No. PJKS, Field Blank
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 4-30-86
QC Report No. 601-28

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other _____

Dilution Factor N/A

*Moisture _____ %

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, Field Blank

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	ND<1.0	---	---	---	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	ND<1.0	---	---	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	ND<1.0	---	---	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	2.2	0.7	16.4	12.9	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423
Client _____
Project Air Force PJKS
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36686-21
Field Sample No. PJKS, Trip Blank
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 4-30-86
QC Report No. 601-28

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other _____

Dilution Factor N/A

*Moisture _____

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, Trip Blank

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	ND<1.0	---	---	---	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	ND<1.0	---	---	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	ND<1.0	---	---	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	TR<1.0	---	---	---	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-10
Field Sample No. PJKS, 1-MW-1, GW-3, IT
Date Collected 4-24-86
Date Received 4-25-86
Date Analyzed 5-10-86
QC Report No. 602-23

Sample Matrix:

☒ Water (ug/L)☐ Soil☐ Other Dilution Factor N/A*Moisture %Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client _____
Project Air Force PJKS
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36686-14
Field Sample No. PJKS, 1-MW-2, GW-3, IT
Date Collected 4-24-86
Date Received 4-25-86
Date Analyzed 5-10-86
QC Report No. 602-23

Sample Matrix:

☒ Water (ug/L)☐ Soil☐ Other _____Dilution Factor N/A

*Moisture _____%

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-17
Field Sample No. PJKS, 2-MW-3, GW-3, IT
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 5-13-86
QC Report No. 602-23

Sample Matrix:

☒ Water (ug/L)☐ Soil☐ Other Dilution Factor 1:5*Moisture %Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	5.0	ND<5.0	---	---	---	
Chlorobenzene	5.0	TR<5.0	---	---	---	
1,2-Dichlorobenzene	5.0	TR<5.0	---	---	---	
1,3-Dichlorobenzene	5.0	TR<5.0	---	---	---	
1,4-Dichlorobenzene	5.0	TR<5.0	---	---	---	
Ethyl benzene	5.0	TR<5.0	---	---	---	
Toluene	5.0	TR<5.0	---	---	---	
Xylenes (Dimethyl benzene)	5.0	ND<5.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client _____
Project Air Force PJKS
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36686-5
Field Sample No. PJKS, 5-MW-4, GW-3, IT
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 5-12-86
QC Report No. 602-23

Sample Matrix:

☒ Water (ug/L)

☐ Soil

☐ Other _____

Dilution Factor N/A

*Moisture _____ %

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client _____
Project Air Force PJKS
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36686-13
Field Sample No. PJKS, 5-MW-5, GW-3, IT
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 5-12-86
QC Report No. 602-23

Sample Matrix:

☒ Water (ug/L)☐ Soil☐ Other _____Dilution Factor N/A

*Moisture _____ %

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	TR<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client _____
Project Air Force PJKS
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36686-15
Field Sample No. PJKS, 4-MW-6, GW-5, IT
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 5-13-86
QC Report No. 602-23

Sample Matrix:

☒ Water (ug/L)☐ Soil☐ Other _____Dilution Factor N/A

*Moisture _____%

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	TR<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client _____
Project Air Force PJKS
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36686-16
Field Sample No. PJKS, 4-MW-6, GW-6, IT
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 5-13-86
QC Report No. 602-23

Sample Matrix:

☒ Water (ug/L)☐ Soil☐ Other _____Dilution Factor N/A

*Moisture _____%

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	TR<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	TR<1.0	---	---	---	
Toluene	1.0	TR<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client _____
Project Air Force PJKS
Client No. _____
Laboratory Supervisor Approval: _____

Lab Sample No. 36686-6
Field Sample No. PJKS, 10-MW-8, GW-3, IT
Date Collected 4-24-86
Date Received 4-25-86
Date Analyzed 5-12-86
QC Report No. 602-23

Sample Matrix:

☒ Water (ug/L)☐ Soil☐ Other _____Dilution Factor N/A

*Moisture _____ %

Spike Source _____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	TR<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	TR<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

Results from Method 625 - BNA's
Dated 1/16/86

APPL, INC.

AGRICULTURE & PRIORITY POLLUTANTS LABORATORIES, INC.

4167 NORTH MOTEL DRIVE, SUITE 102 • FRESNO, CALIFORNIA 93711 • PHONE (209) 275-2175

Engineering Science
1687 Tullie Circle, Suite 105
Atlanta, Georgia 30329
Attn: Johnny Adamson

Sample Date: 01/14/86
Report Date: 01/23/86

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Sample I.D. No: 56528 PJKS, 1-MW-1
GW-1, ES 12:30
01-86-1126

Date Received: 01/16/86

APPL Sample No: A005-05466W

Date Extracted: 01/20/86

Method 625 Results:

Revised Report

<u>Acid Cmpds</u>	<u>Concentration µg/l</u>	<u>Detection Limit µg/l</u>
2,4,6-trichlorophenol	ND*	6
p-chloro-m-cresol	ND	6
2-chlorophenol	ND	2
2,4-dichlorophenol	ND	1
2,4-dimethylphenol	ND	4
2-nitrophenol	ND	3
4-nitrophenol	ND	40
2,4-dinitrophenol	ND	42
4,6-dinitro-o-cresol	ND	25
Pentachlorophenol	ND	3
Phenol	ND	15

<u>Base/Neutral Cmpds</u>	<u>Concentration µg/l</u>	<u>Detection Limit µg/l</u>
Acenaphthene	ND	4
Benzidine	ND	80
1,2,4-trichlorobenzene	ND	3
Hexachlorobenzene	ND	4
Hexachloroethane	ND	2
bis (2-chloroethyl) ether	ND	4
2-chloronaphthalene	ND	4
1,2-dichlorobenzene	ND	2
1,3-dichlorobenzene	ND	4
1,4-dichlorobenzene	ND	4
3,3'-dichlorobenzidine	ND	20
2,4-dinitrotoluene	ND	6
2,6-dinitrotoluene	ND	4
1,2-diphenylhydrazine (azobenzene)	ND	6
Fluoranthene	ND	8
4-chlorophenyl phenyl ether	ND	6
4-bromophenyl phenyl ether	ND	6

Sample I.D. No: 56528 PJKS, 1-MW-1

Page 2 of 3

GW-1, ES 12:30

01-86-1126

APPL Sample No: A005-05466W

Method 625 Results con't

<u>Base/Neutral Compds</u>	<u>Concentration ug/l</u>	<u>Detection Limit ug/l</u>
bis-(2-chloroisopropyl) ether	ND	4
bis-(2-chloroethoxy) methane	ND	4
Hexachlorobutadiene	ND	6
Hexachlorocyclopentadiene	ND	40
Isophorone	ND	20
Napthalene	ND	1
Nitrobenzene	ND	4
N-nitrosodimethylamine	ND	40
N-nitrosodiphenylamine	ND	8
N-nitrosodi-n-propylamine	ND	6
bis-(2-ethylhexyl) phthalate	ND	12
Butyl benzyl phthalate	ND	18
Di-n-butyl phthalate	ND	5
Di-n-octyl phthalate	ND	10
Diethyl phthalate	ND	4
Dimethyl phthalate	ND	8
Benzo (a) anthracene	ND	10
Benzo (a) pyrene	ND	14
3,4-benzofluoroanthene	ND	20
Benzo(k)fluoroanthene	ND	20
Chrysene	ND	8
Acenaphthylene	ND	2
Anthracene	ND	4
Benzo(ghi)perylene	ND	14
Fluorene	ND	4
Phenanthrene	ND	6
Dibenzo(a,h)anthracene	ND	16
Indeno(1,2,3-cd)pyrene	ND	14
Pyrene	ND	6
Dieldrin	ND	50
4,4'-DDD	ND	50
4,4'-DDT	ND	50
Endosulfan sulfate	ND	50
Endrin aldehyde	ND	50
Chlordane	ND	50
Toxaphene	ND	50

Sample I.D. No: 56528 PJKS, 1-MW-1
GW-1, ES 12:30
01-86-1126

Page 3 of 3

APPL Sample No: A005-05466W

Method 625 Results con't

<u>Base/Neutral Compds</u>	<u>Concentration $\mu\text{g/l}$</u>	<u>Detection Limit $\mu\text{g/l}$</u>
α -BHC	ND	50
β -BHC	ND	50
δ -BHC	ND	50
Lindane	ND	50
Endosulfan I	ND	50
Endosulfan II	ND	50
Heptachlor	ND	50
Aldrin	ND	50
PCB 1016	ND	100
PCB 1221	ND	100
PCB 1232	ND	100
PCB 1242	ND	100
PCB 1254	ND	100
PCB 1260	ND	100

* ND = None Detected

Tested By Diane Anderson

Checked By Pamela Cooper

APPL, INC.

AGRICULTURE & PRIORITY POLLUTANTS LABORATORIES, INC.

4167 NORTH MOTEL DRIVE, SUITE 102 • FRESNO, CALIFORNIA 93711 • PHONE (209) 275-2175

Engineering Science
1687 Tullie Circle, Suite 105
Atlanta, Georgia 30329
Attn: Johnny Adamson

Sample Date: 01/14/86
Report Date: 01/23/86

Page 1 of 3

Sample I.D. No: 56528 PJKS, 1-MW-2
GW-1, ES 3:45
01-86-1127

Date Received: 01/16/86

APPL Sample No: A005-05467W

Date Extracted: 01/20/86

Method 625 Results:

Revised Report

<u>Acid Cmpds</u>	<u>Concentration ug/l</u>	<u>Detection Limit ug/l</u>
2,4,6-trichlorophenol	ND*	6
p-chloro-m-cresol	ND	6
2-chlorophenol	ND	2
2,4-dichlorophenol	ND	1
2,4-dimethylphenol	ND	4
2-nitrophenol	ND	3
4-nitrophenol	ND	40
2,4-dinitrophenol	ND	42
4,6-dinitro-o-cresol	ND	25
Pentachlorophenol	ND	3
Phenol	ND	15

<u>Base/Neutral Cmpds</u>	<u>Concentration ug/l</u>	<u>Detection Limit ug/l</u>
Acenaphthene	ND	4
Benzidine	ND	80
1,2,4-trichlorobenzene	ND	3
Hexachlorobenzene	ND	4
Hexachloroethane	ND	2
bis (2-chloroethyl) ether	ND	4
2-chloronaphthalene	ND	4
1,2-dichlorobenzene	ND	2
1,3-dichlorobenzene	ND	4
1,4-dichlorobenzene	ND	4
3,3'-dichlorobenzidine	ND	20
2,4-dinitrotoluene	ND	6
2,6-dinitrotoluene	ND	4
1,2-diphenylhydrazine (azobenzene)	ND	6
Fluoranthene	ND	8
4-chlorophenyl phenyl ether	ND	6
4-bromophenyl phenyl ether	ND	6

Sample I.D. No: 56528 PJKS, 1-MW-2

Page 2 of 3

GW-1, ES 3:45

01-86-1127

APPL Sample No: A005-05467W

Method 625 Results con't

<u>Base/Neutral Compds</u>	<u>Concentration ug/l</u>	<u>Detection Limit ug/l</u>
bis-(2-chloroisopropyl) ether	ND	4
bis-(2-chloroethoxy) methane	ND	4
Hexachlorobutadiene	ND	6
Hexachlorocyclopentadiene	ND	40
Isophorone	ND	20
Napthalene	ND	1
Nitrobenzene	ND	4
N-nitrosodimethylamine	ND	40
N-nitrosodiphenylamine	ND	8
N-nitrosodi-n-propylamine	ND	6
bis-(2-ethylhexyl) phthalate	ND	12
Butyl benzyl phthalate	ND	18
Di-n-butyl phthalate	ND	5
Di-n-octyl phthalate	ND	10
Diethyl phthalate	ND	4
Dimethyl phthalate	ND	8
Benzo (a) anthracene	ND	10
Benzo (a) pyrene	ND	14
3,4-benzofluoroanthene	ND	20
Benzo(k)fluoroanthene	ND	20
Chrysene	ND	8
Acenaphthylene	ND	2
Anthracene	ND	4
Benzo(ghi)perylene	ND	14
Fluorene	ND	4
Phenanthrene	ND	6
Dibenzo(a,h)anthracene	ND	16
Indeno(1,2,3-cd)pyrene	ND	14
Pyrene	ND	6
Dieldrin	ND	50
4,4'-DDE	ND	50
4,4'-DDD	ND	50
4,4'-DDT	ND	50
Endrin	ND	50
Endosulfan sulfate	ND	50
Endrin aldehyde	ND	50
Chlordane	ND	50
Toxaphene	ND	50

Sample I.D. No: 56528 PJKS, 1-MW-2 Page 3 of 3
GW-1, ES 3:45
01-86-1127

APPL Sample No: A005-05467W

Method 625 Results con't

<u>Base/Neutral Compds</u>	<u>Concentration ug/l</u>	<u>Detection Limit ug/l</u>
α -BHC	ND	50
β -BHC	ND	50
δ -BHC	ND	50
Lindane	ND	50
Endosulfan I	ND	50
Endosulfan II	ND	50
Heptachlor	ND	50
Aldrin	ND	50
PCB 1016	ND	100
PCB 1221	ND	100
PCB 1232	ND	100
PCB 1242	ND	100
PCB 1248	ND	100
PCB 1254	ND	100
PCB 1260	ND	100

* ND = None Detected

Tested By Diane Anderson
Checked By Lance Cooper

APPL, INC.

AGRICULTURE & PRIORITY POLLUTANTS LABORATORIES, INC.

4167 NORTH MOTEL DRIVE, SUITE 102 • FRESNO, CALIFORNIA 93711 • PHONE (209) 275-2175

Engineering Science
1687 Tullie Circle, Suite 105
Atlanta, Georgia 30329
Attn: Johnny Adamson

Sample Date: 01/15/86
Report Date: 01/23/86

Page 1 of 3

Sample I.D. No: PJKS, 01-86-1130
2-MW-3, GW-1 ES

Date Received: 01/17/86

APPL Sample No: A005-05468W

Date Extracted: 01/20/86

Method 625 Results:

Revised Report

<u>Acid Cmpds</u>	<u>Concentration ug/l</u>	<u>Detection Limit ug/l</u>
2,4,6-trichlorophenol	ND*	6
p-chloro-m-cresol	ND	6
2-chlorophenol	ND	2
2,4-dichlorophenol	ND	1
2,4-dimethylphenol	ND	4
2-nitrophenol	ND	3
4-nitrophenol	ND	40
2,4-dinitrophenol	ND	42
4,6-dinitro-o-cresol	ND	25
Pentachlorophenol	ND	3
Phenol	ND	15

<u>Base/Neutral Cmpds</u>	<u>Concentration ug/l</u>	<u>Detection Limit ug/l</u>
Acenaphthene	ND	4
Benzidine	ND	80
1,2,4-trichlorobenzene	ND	3
Hexachlorobenzene	ND	4
Hexachloroethane	ND	2
bis (2-chloroethyl) ether	ND	4
2-chloronaphthalene	ND	4
1,2-dichlorobenzene	ND	2
1,3-dichlorobenzene	ND	4
1,4-dichlorobenzene	ND	4
3,3'-dichlorobenzidine	ND	20
2,4-dinitrotoluene	ND	6
2,6-dinitrotoluene	ND	4
1,2-diphenylhydrazine (azobenzene)	ND	6
Fluoranthene	ND	8
4-chlorophenyl phenyl ether	ND	6
4-bromophenyl phenyl ether	ND	6

Sample I.D. No: PJKS 01-86-1130
2-MW-3, GW-1, ES

Page 2 of 3

APPL Sample No: A005-05468W

Method 625 Results con't

<u>Base/Neutral Cmpds</u>	<u>Concentration ug/l</u>	<u>Detection Limit ug/l</u>
bis-(2-chloroisopropyl) ether	ND	4
bis-(2-chloroethoxy) methane	ND	4
Hexachlorobutadiene	ND	6
Hexachlorocyclopentadiene	ND	40
Isophorone	ND	20
Napthalene	ND	1
Nitrobenzene	ND	4
N-nitrosodimethylamine	ND	40
N-nitrosodiphenylamine	ND	8
N-nitrosodi-n-propylamine	ND	6
bis-(2-ethylhexyl) phthalate	ND	12
Butyl benzyl phthalate	ND	18
Di-n-butyl phthalate	ND	5
Di-n-octyl phthalate	ND	10
Diethyl phthalate	ND	4
Dimethyl phthalate	ND	8
Benzo (a) anthracene	ND	10
Benzo (a) pyrene	ND	14
3,4-benzofluoroanthene	ND	20
Benzo(k)fluoroanthene	ND	20
Chrysene	ND	8
Acenaphthylene	ND	2
Anthracene	ND	4
Benzo(ghi)perylene	ND	14
Fluorene	ND	4
Phenanthrene	ND	6
Dibenzo(a,h)anthracene	ND	16
Indeno(1,2,3-cd)pyrene	ND	14
Pyrene	ND	6
Dieldrin	ND	50
4,4'-DDE	ND	50
4,4'-DDD	ND	50
4,4'-DDT	ND	50
Endron	ND	50
Endosulfan sulfate	ND	50
Endrin aldehyde	ND	50
Chlordane	ND	50
Toxaphene	ND	50

Sample I.D. No: PJKS 01-86-1130
2-MW-3, GW-1, ES

Page 3 of 3

APPL Sample No: A005-05468W

Method 625 Results con't

<u>Base/Neutral_Cmpds</u>	<u>Concentration_ug/l</u>	<u>Detection_Limit_ug/l</u>
α -BHC	ND	50
β -BHC	ND	50
δ -BHC	ND	50
Lindane	ND	50
Endosulfan I	ND	50
Endosulfan II	ND	50
Heptachlor	ND	50
Aldrin	ND	50
PCB 1016	ND	100
PCB 1221	ND	100
PCB 1232	ND	100
PCB 1242	ND	100
PCB 1248	ND	100
PCB 1254	ND	100
PCB 1260	ND	100

* ND = None Detected

Tested By Diane Anderson

Checked By Pamela Cooper

CHAIN OF CUSTODY RECORD

L-409

APPL, INC.

AGRICULTURE & PRIORITY POLLUTANTS LABORATORIES, INC.

4167 NORTH MOTEL DRIVE, SUITE 102 • FRESNO, CALIFORNIA 93711 • PHONE (209) 275-2175

Engineering Science
1687 Tullie Circle, Suite 105
Atlanta, Georgia 30329
Attn: Johnny Adamson

Sample Date: 01/16/86
Report Date: 01/23/86

Page 1 of 3

Sample I.D. No: PJKS, 2-MW-7,
GW-1, ES 01-86-1177

Date Received: 01/21/86

APPL Sample No: A005-05474W

Date Extracted: 01/22/86

Method 625 Results:

Revised Report

<u>Acid Cmpds</u>	<u>Concentration µg/l</u>	<u>Detection Limit µg/l</u>
2,4,6-trichlorophenol	ND*	6
p-chloro-m-cresol	ND	6
2-chlorophenol	ND	2
2,4-dichlorophenol	ND	1
2,4-dimethylphenol	ND	4
2-nitrophenol	ND	3
4-nitrophenol	ND	40
2,4-dinitrophenol	ND	42
4,6-dinitro-o-cresol	ND	25
Pentachlorophenol	ND	3
Phenol	ND	15

<u>Base/Neutral Cmpds</u>	<u>Concentration µg/l</u>	<u>Detection Limit µg/l</u>
Acenaphthene	ND	4
Benzidine	ND	80
1,2,4-trichlorobenzene	ND	3
Hexachlorobenzene	ND	4
Hexachloroethane	ND	2
bis (2-chloroethyl) ether	ND	4
2-chloronaphthalene	ND	4
1,2-dichlorobenzene	ND	2
1,3-dichlorobenzene	ND	4
1,4-dichlorobenzene	ND	4
3,3'-dichlorobenzidine	ND	20
2,4-dinitrotoluene	ND	6
2,6-dinitrotoluene	ND	4
1,2-diphenylhydrazine (azobenzene)	ND	6
Fluoranthene	ND	8
4-chlorophenyl phenyl ether	ND	6
4-bromophenyl phenyl ether	ND	6

Sample I.D. No: PJKS 2-MW-7, GW-1
ES 01-86-1177

Page 2 of 3

APPL Sample No: A005-05474W

Method 625 Results con't

<u>Base/Neutral_Cmpds</u>	<u>Concentration_ug/l</u>	<u>Detection_Limit_ug/l</u>
bis-(2-chloroisopropyl) ether	ND	4
bis-(2-chloroethoxy) methane	ND	4
Hexachlorobutadiene	ND	6
Hexachlorocyclopentadiene	ND	40
Isophorone	ND	20
Napthalene	ND	1
Nitrobenzene	ND	4
N-nitrosodimethylamine	ND	40
N-nitrosodiphenylamine	ND	8
N-nitrosodi-n-propylamine	ND	6
bis-(2-ethylhexyl) phthalate	ND	12
Butyl benzyl phthalate	ND	18
Di-n-butyl phthalate	ND	5
Di-n-octyl phthalate	ND	10
Diethyl phthalate	ND	4
Dimethyl phthalate	ND	8
Benzo (a) anthracene	ND	10
Benzo (a) pyrene	ND	14
3,4-benzofluoroanthene	ND	20
Benzo(k)fluoroanthene	ND	20
Chrysene	ND	8
Acenaphthylene	ND	2
Anthracene	ND	4
Benzo(ghi)perylene	ND	14
Fluorene	ND	4
Phenanthrene	ND	6
Dibenzo(a,h)anthracene	ND	16
Indeno(1,2,3-cd)pyrene	ND	14
Pyrene	ND	6
Dieldrin	ND	50
4,4'-DDE	ND	50
4,4'-DDD	ND	50
4,4'-DDT	ND	50
Endrin	ND	50
Endosulfan sulfate	ND	50
Endrin aldehyde	ND	50
Chlordane	ND	50
Toxphene	ND	50

Sample I.D. No: PJKS 2-MW-7, GW-1
ES 01-86-1177

Page 3 of 3

APPL Sample No: A005-05474W

Method 625 Results con't

<u>Base/Neutral Cmpds</u>	<u>Concentration $\mu\text{g/l}$</u>	<u>Detection Limit $\mu\text{g/l}$</u>
α -BHC	ND	50
β -BHC	ND	50
δ -BHC	ND	50
Lindane	ND	50
Endosulfan I	ND	50
Endosulfan II	ND	50
Heptachlor	ND	50
Aldrin	ND	50
PCB 1016	ND	100
PCB 1221	ND	100
PCB 1232	ND	100
PCB 1242	ND	100
PCB 1248	ND	100
PCB 1254	ND	100
PCB 1260	ND	100

* ND = None Detected

Tested By

Diane Anderson

Checked By

Pamela Cooper

ENGINEERING-SCIENCE

CHAIN OF CUSTODY RECORD

ES JOB NO.		PROJECT NAME/LOCATION		NO. OF CONTAINERS	ANALYSES REQUIRED	SHIP TO:	
56528		P.J.K.S.				ENGINEERING-SCIENCE, INC. 1687 Tulle Circle Suite 106 Atlanta, GA. 30329 (404) 325-5923	
SAMPLER(S): (Signature)				REMARKS			
DATE	TIME	SAMPLE DESCRIPTION		<div style="border: 1px solid black; padding: 5px; transform: rotate(-45deg); display: inline-block;"> 5 2 8 </div>			
1/20/86	5:00pm	01-86-1177					
Relinquished by: (Signature)		Date/Time	Received by: (Signature)	Date/Time	Received by: (Signature)		
Johnny P. Adams		1/20	5:00pm				
Relinquished by: (Signature)		Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks		
					1/21/86 10:30		

Results from ES for Metals and Inorganic Parameters

98-51-1

*Moisture

/ / Other

• If a moisture is reported, results are presented on a dry-weight basis.

/ / Other

* If \ moisture is reported, results are presented on a dry-weight basis.

Note A: No oil & grease sample provided. OK
B: No phenolics sample provided. OK

Engineering-Science

Page 1 of 1 Report

ES Job No. 56528
Client USAF
Project PTKS. Denver
Client No. _____
Date Collected 1-16-86
Date Received 1-17-86

CC Report No.

Laboratory Supervisor Approval:

John R. Anderson
Dilution Factor
Moisture

Sample Matrix:

	Water (ug/L)	Soil (ug/g)
✓	0.00	0.00
✓	0.00	0.00

Soil (ug/g) (b/bn) (ug/kg)

/ / Other

Field Sample No.	Lab Sample No.	NH ₃	O&G	TDS	Phenolics	TKN	Mn (ppm)
PJKS, 2-mw-7, (W-1), ES	01-86-1197	0.118	<1.0	B	0.007	10.1	B
PJKS, 4-mw-4, (W-1), ES	01-86-1198	0.026	<1.0	B	A	21.6	A/B
PJKS, 4-mw-5, (W-1), ES	01-86-1199	<0.011	4070	B	A	3.5	A/B
Date Analyzed	M D	1 / 17	1 / 22	N A	1 / 20	1 / 21	/
Analytical Method		EPA 300	EPA 413.1	EPA 160.3	EPA 410.1	EPA 351.3	

* If moisture is reported, results are presented on a dry-weight basis. For these

Note A: No phenolics samples provided for these for these
 B: TO5 samples not provided for series of samples (RCA)

44,91111

ES Job No. 56528
Client USAP
Project PJKS Plant
Client No. _____
Date Collected 14 Jan. 86
Date Received 15 Jan. 86

QC Report No. _____
Laboratory Supervisor Approval: Johnny R. Adams
Dilution Factor _____
Moisture _____

Sample Matrix:	Water (ug/L)	Soil (ug/g)	Other
<input checked="" type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			

[illegible]

* If moisture is reported, results are presented on a dry-weight basis.

*** F = Flame AAS C = Cold Vapor AAS G = Graphite Furnace AAS
 () H = Hydride Vapor AAS P = Inductively Coupled Plasma

ANALYTICAL RESULTS SUMMARY

Metals

Engineering-Science

ES Job No. 56528
Client USAF
Project PJKS Plant
Client No. _____
Date Collected 15 Jan. 86
Date Received 16 Jan. 86

QC Report No. _____
Laboratory Supervisor Approval: Johnny R. Anderson
Dilution Factor _____
*Moisture _____

Sample Matrix:
☒ Water (ug/L) (mg/L)
☐ Soil (ug/g) (ug/Kg)
☐ Other

[illegible]

* If a moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY

ES Job No. 56528
Client USAF
Project PJKS Plant
Client No. _____
Date Collected 15 Jan 86
Date Received 16 Jan 86

QC Report No. _____
Laboratory Supervisor Approval: Johnny R. Adenauer
Dilution Factor _____
*Moisture _____

Sample Matrix: mg/L
☒ Water (ug/L)
☐ Soil (ug/g) (ug/kg)
☐ Other

[illegible]

* If moisture is reported, results are presented on a dry-weight basis.

QC Report No.

Laboratory Supervisor Approval: Johnny R. Adams
Dilution Factor _____
Moisture _____

Sample Matrix:

Water (ug/L)

Soil (ug/g) (ug/kg)

Other

Field Sample No.	Lab Sample No.	NH ₂	NO ₃	O & G	TDS	Phenolics			Notes
PJKS 2-mw-3-GW-LES	01-86-113D	0.151	4.0	<1.0	540	<0.005			A
PJKS 10-mw-5-GW-LES	01-86-113I	0.011	3.0	PA	410	<0.005			B
PJKS 21-mw-6-GW-LES	01-86-113Z	0.011	1.8	<1.0	370	B			C
PJKS 4-mw-5-GW-2-ES	01-86-1133	0.09C	2.2	<1.0	370	B			
Date Analyzed	M D	1 / 1	16 + 17	1 22	1 21	1 16			
Analytical Method		EPA 354.1	EPA 352.1	EPA 413.1	EPA 160.3	EPA 420.1			

* If moisture is reported, results are presented on a dry-weight basis.

ed, results are presented on a dry-weight basis.

Note A: No oil & grease sample provided. OK

Note B: No phenolics sample provided. OK

ES Job No. 56528
Client USAF
Project 97KS Denver
Client No.
Date Collected 1-16-86
Date Received 1-17-86

QC Report No.

Laboratory Supervisor Approval:

Sample Matrix:

Water (ug/L)

Soil (uq/q) (uq/Kq)

Other

[illegible]

* If a moisture is reported, results are presented on a dry-weight basis.

ported, results are presented on a dry-weight basis.

Note A: No phenolics samples provided for series of samples (RC)
 B: TO's samples not provided for series of samples (RC)

ANALYTICAL RESULTS SUMMARY

Metals

Engineering-Science

ES Job No. 56528
Client USAF
Project PJKS Plant
Client No. _____
Date Collected 15 Jan. 86
Date Received 16 Jan. 86

QC Report No. _____
Laboratory Supervisor Approval: Johnny R. Adelman
Dilution Factor _____
Moisture _____

Sample Matrix:

Water (ug/L) (mg)

Soil (ug/g) (ug/kg)

Other

[illegible]

• If moisture is reported, results are presented on a dry-weight basis.

*** F = Flame AAS C = Cold Vapor AAS G = Graphite Furnace AAS
, H = Hydride Vapor AAS P = Inductively Coupled Plasma

Date Received 24/25 April 86

Moisture

/ Other

If moisture is reported, results are presented on a dry-weight basis.

Date Received 24/25 April 86

***Moisture**

/ / Other

* If moisture is reported, results are presented on a dry-weight basis.

859J111

ES Job No. 56528

Client Twila Kamen

Project PJKS Denver

Client No. _____

Date Collected _____

Date Received _____

QC Report No.

Laboratory Supervisor Approval:

Johanna
Dilution Factor

***Moisture**

Sample Matrix:

1X/ Water (ug/L) (mg/L).

/ / Soil (ug/g) (ug/kg)

/ / Other

[illegible]

* If % moisture is reported, results are presented on a dry-weight basis.

** F = Flame AAS	C = Cold Vapor AAS	G = Graphite Furnace AAS
= Hydride Vapor AAS	P = Inductively Coupled Plasma	

ES Job No. 56528
Client Lisa Kerner
Project PJKS
Client No. _____
Date Collected _____
Date Received 11 April 86

QC Report No. _____

Laboratory Supervisor Approval: _____

Johnny P. Adams

Dilution Factor _____

Moisture _____

Sample Matrix:

<input checked="" type="checkbox"/>	Water (ug/g)	7/500
<input type="checkbox"/>	Soil (ug/g)	
<input type="checkbox"/>	Other	

Field Sample No.	Lab Sample No.	TKN	N03	TDS					Notes
4/10/86, 2:25, 2MW3 ↓ 3:45, 1MW2 ↓ 5:00, 5MUS	04-86-1073	1.84	X	X	(Very muddy sample)				
	04-86-1074	X	1.32	X					
	04-86-1075	X	1.33	463					
4/11/86, 3:15, 4MW4CWZ	04-86-1092	X	X	SSO					
Date Analyzed	M D	4 15	4 11	4 11	/	/	/	/	
Analytical Method		EPA 351.3	EPA 352.1	EPA 110.3					

* If moisture is reported, results are presented on a dry-weight basis.

Results from Radiation Scan

ATTACHMENT 1 RESULTS

Sample Number	Collection Date	Analysis	Results pCi/L \pm 2 σ
MW-6 GW-1	1/15/86	Gross Alpha	180 \pm 60 [*]
		Gross Beta	200 \pm 10
		²²⁸ Th	1.13 \pm 0.06
		²³⁰ Th	0.56 \pm 0.05
		²³² Th	0.80 \pm 0.05
		Ge(Li) Scan: ²²⁶ Ra	70 \pm 10
MW-6 GW-2	1/15/86	Gross Alpha	130 \pm 30
		Gross Beta	250 \pm 20
		²²⁸ Th	0.65 \pm 0.06
		²³⁰ Th	0.30 \pm 0.04
		²³² Th	0.48 \pm 0.04
		Ge(Li) Scan: ²²⁶ Ra	80 \pm 10
MW-4 GW-1	1/16/86	Gross Alpha	250 \pm 20
		Gross Beta	120 \pm 20
		²²⁸ Th	8.2 \pm 0.4
		²³⁰ Th	6.5 \pm 0.4
		²³² Th	5.8 \pm 0.3
		Ge(Li) Scan: ²²⁶ Ra	120 \pm 10
MW-5 GW-1	1/16/86	Gross Alpha	270 \pm 20
		Gross Beta	160 \pm 30
		²²⁸ Th	4.1 \pm 0.2
		²³⁰ Th	2.2 \pm 0.2
		²³² Th	2.8 \pm 0.2
		Ge(Li) Scan: ²²⁶ Ra	140 \pm 10

* includes radium, uranium, radon, etc.

A		B		C		D		E		F		G		H		I		J		K		L		M		N		O		P		Q		R		S		T		U		V		W		X		Y		Z		AA		AB		AC		AD		AE		AF		AG		AH		AI		AJ		AK		AL		AM		AN		AO		AP		AQ		AR		AS		AT		AU		AV		AW		AX		AY		AZ		BA		BB		BC		BD		BE		BF		BG		BH		BI		BJ		BK		BL		BM		BN		BO		BP		BQ		BR		BS		BT		BU		BV		BW		BX		BY		BZ		CA		CB		CC		CD		CE		CF		CG		CH		CI		CJ		CK		CL		CM		CN		CO		CP		CQ		CR		CS		CT		CU		CV		CW		CX		CY		CZ		DA		DB		DC		DD		DE		DF		DG		DH		DI		DJ		DK		DL		DM		DN		DO		DP		DQ		DR		DS		DT		DU		DV		DW		DX		DY		DZ		EA		EB		EC		ED		EE		EF		EG		EH		EI		EJ		EK		EL		EM		EN		EO		EP		EQ		ER		ES		ET		EU		EV		EW		EX		EY		EZ		FA		FB		FC		FD		FE		FF		FG		FH		FI		FJ		FK		FL		FM		FN		FO		FP		FQ		FR		FS		FT		FU		FV		FW		FX		FY		FZ		GA		GB		GC		GD		GE		GF		GG		GH		GI		GJ		GK		GL		GM		GN		GO		GP		GQ		GR		GS		GT		GU		GV		GW		GX		GY		GZ		HA		HB		HC		HD		HE		HF		HG		HH		HI		HJ		HK		HL		HM		HN		HO		HP		HQ		HR		HS		HT		HU		HV		HW		HX		HY		HZ		IA		IB		IC		ID		IE		IF		IG		IH		II		IJ		IK		IL		IM		IN		IO		IP		IQ		IR		IS		IT		IU		IV		IW		IX		IY		IZ		JA		JB		JC		JD		JE		JF		JG		JH		JI		JJ		JK		JL		JM		JN		JO		JP		JQ		JR		JS		JT		JU		JV		JW		JX		JY		JZ		KA		KB		KC		KD		KE		KF		KG		KH		KI		KJ		KK		KL		KM		KN		KO		KP		KQ		KR		KS		KT		KU		KV		KW		KX		KY		KZ		LA		LB		LC		LD		LE		LF		LG		LH		LI		LJ		LK		LL		LM		LN		LO		LP		LQ		LR		LS		LT		LU		LV		LW		LX		LY		LZ		MA		MB		MC		MD		ME		MF		MG		MH		MI		MJ		MK		ML		MN		MO		MP		MQ		MR		MS		MT		MU		MV		MW		MX		MY		MZ		NA		NB		NC		ND		NE		NF		NG		NH		NI		NJ		NK		NL		NM		NN		NO		NP		NQ		NR		NS		NT		NU		NV		NW		NX		NY		NZ		OA		OB		OC		OD		OE		OF		OG		OH		OI		OJ		OK		OL		OM		ON		OO	
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[illegible]

5 17351
5 7340

A		GN 86 0005		18601077		CHEMISTRY		C		LABORATORY	
SO		ATP TORS, Waterton, CO		Q253D		WT OR VOL ANALYZED		WT (DISI)		RHL NO	
SU		Col: 21-MAY-85		Rec: 03-JUN-86		CHEMICAL RECOVERY		WT (SUS)		BASE CODE	
AF		4ABGP		WATER		SPIKE RHL NO.		VOL SPIKE ADDED		DATE REC	
AN		Brook's AFB		TX 78235		REMARKS		CHEM COMP		DATE COMP	
D		COUNTING DATA		E		RESULTS		ACTIVITY		NUCLIDE	
COUNTER AND EFF		64000		GROSS ALPHA DIS		GROSS ALPHA SUS		GROSS ALPHA (URINE)		GROSS ALPHA (SOIL)	
TIME AND TOT CTS		7		GROSS ALPHA (SOIL)		GROSS ALPHA (VEG)		GROSS ALPHA (AIR FILTER)		GROSS BETA DIS	
TIME AND BKG CTS		100/13/360		GROSS BETA (URINE)		GROSS BETA (SOIL)		GROSS BETA (VEG)		GROSS BETA (AIR FILTER)	
NET CPM		78/1014/1000		GROSS BETA (SOIL)		GROSS BETA (VEG)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)	
DATE AND TIME START		10/20/86		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)	
COUNTER AND EFF				GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)	
TIME AND TOT CT				GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)	
TIME AND BKG CTS				GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)	
NET CPM				GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)	
DATE AND TIME START				GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)	
RADON		CELL NO.		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)	
DATE COUNTED		TIME STARTED		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)	
TOTAL TIME		UNCORRECTED SAMPLE ACT		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)	
TOTAL COUNTS		TIME COR FACTOR		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)	
GROSS CPM		CORRECTED SAMPLE ACT		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)	
BKG CPM		CONTROL ROOM ACTIVITY		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)	
NCPM		NET SAMPLE ACTIVITY		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)		GROSS BETA (AIR FILTER)	
				RECOVERY				+		%	
				COUNT COMP		12 JUN 1986		BY		Robert F. O.	

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

A		GN 86 0005		18601077		B		C		LABORATORY IDENTIFICATION	
SOC		APP POKS, Waterton, Co		Q253D		WT OR VOL ANALYZED		WT (D/S)		RHL NO	
SUB		Col: 21-MAY-86		Rec: 03-JUN-86		CHEMICAL RECOVERY		SEP TIME		BASE CODE	
AFB		4ABGP		WATER		SPIKE RHL NO.		VOL SPIKE ADDED		DATE REC	
ANAL		Brook's AFB		TY 78235		REMARKS		CHEM COMP		BY	
		Brud Cr. st. 2		Logged by PJ		GAMMA		6/5/86		C	
D		COUNTING DATA		1/2		E		UNITS		ACTIVITY	
COUNTER AND EFF						GROSS ALPHA DIS		PCIL		11-235 243	
TIME AND TOT CTS						GROSS ALPHA SUS		PCIL		11-40 292	
TIME AND BKG CTS						GROSS ALPHA (URINE)		PCI24H		12-51 262	
NET CPM						GROSS ALPHA (SOIL)		PCI24H		12-60 213	
DATE AND TIME START						GROSS ALPHA (VEG)		PCI24H		22-95 216	
						GROSS ALPHA (AIR FILTER)		PCI24H		14-95 213	
COUNTER AND EFF						GROSS BETA DIS		PCIL		14-99 250	
TIME AND TOT CT						GROSS BETA SUS		PCIL		14-03 24	
TIME AND BKG CTS						GROSS BETA (URINE)		PCI24H		14-06 255	
NET CPM						NET BETA (URINE)		PCI24H		17-31 228	
DATE AND TIME START						GROSS BETA (SOIL)		PCI24H		17-34 27	
						GROSS BETA (VEG)		PCI24H		17-37 24	
RADON				CELL NO.		GROSS BETA (AIR FILTER)		PCI24H		17-40 247	
DATE COUNTED				TIME STARTED		SAMPLE WT DIS		MGIL		17-40 216	
TOTAL TIME				UNCORRECTED SAMPLE ACT		SAMPLE WT SUS		MGIL			
TOTAL COUNTS				TIME COR FACTOR		SAMPLE VOL (URINE)		ML			
GROSS CPM				CORRECTED SAMPLE ACT		SAMPLE VOL (AIR FILTER)		M3			
BKG CPM				CONTROL ROOM ACTIVITY		SAMPLE WT					
NCPM				NET SAMPLE ACTIVITY		RECOVERY					

5.7.83

SAMPLE IDENTIFICATION			TYPE SAMPLE		CHEMISTRY DATA		WT (DIS)		C		LABORATORY IDENTIFICATION	
A	GN 86 0006	AFB P/CO, Watertown, CO	18601079	Q253D	B	WT OR VOL ANALYZED	WT (DIS)	WT (DIS)	RHL NO	BASE CODE	DATE REC	DATE COMP
SUB	Col: 21-MAY-86	Rec: 03-JUN-86			CH	CHEMICAL RECOVERY						
AFB	4ABGF	WATER			REMARKS							
ANA	Brooks AFB	TX 78235										
Brack Creek Station 3 below 7-88 road												
D	COUNTING DATA				E	RESULTS	ACTIVITY	ERROR	UNITS	NUCLIDE	BY	ACTIVITY
	COUNTER AND EFF					GROSS ALPHA DIS	<1.9	+ HQA	PCIL			
	TIME AND TOT CTS					GROSS ALPHA SUS			PCIL			
	TIME AND BKG CTS					GROSS ALPHA (URINE)			PCI/24H			
	NET CPM					GROSS ALPHA (SOIL)			PCI/GD			
	DATE AND TIME START					GROSS ALPHA (VEG)			PCI/GA			
						GROSS ALPHA (AIR FILTER)			PCIM ³			
	COUNTER AND EFF					GROSS BETA DIS	10.4	+ 2.2	PCIL			
	TIME AND TOT CT					GROSS BETA SUS			PCIL			
	TIME AND BKG CTS					GROSS BETA (URINE)			PCI/24H			
	NET CPM					NET BETA (URINE)			PCI/24H			
	DATE AND TIME START					GROSS BETA (SOIL)			PCI/GD			
						GROSS BETA (VEG)			PCI/GA			
						GROSS BETA (AIR FILTER)			PCIM ³			
	RADON					SAMPLE WT DIS			MG/L			
	DATE COUNTED					SAMPLE WT SUS			MG/L			
	TOTAL TIME					SAMPLE VOL (URINE)			ML			
	TOTAL COUNTS					SAMPLE VOL (AIR FILTER)			M ³			
	GROSS CPM					SAMPLE WT						
	BKG CPM					RECOVERY						
	NCPM											

AFB FORM 5.0005
 12 JUN 1986
 RADIOLOGICAL SAMPLE

GN 86 0006
BPP PPKS, Watertown, CO
Col: 21-MAY-86
18601078
Q253D
Rec: 03-JUN-86

4ABGP

BROOKS AFB

WATER
TX 78235
Logged by PJ

Brul on. srs.3

B		CHEMISTRY		WT		C		LABORATORY IDENTIFICATION	
WT OR VOL ANALYZED		WT (DIS)		WT (SUS)		RHL NO			
CHEMICAL RECOVERY		SEP TIME		BASE CODE					
SPIKE RHL NO.		VOL SPIKE ADDED		DATE REC		BY			
REMARKS		CHEM COMP		NUCLIDE		ACTIVITY		ERROR	
E		RESULTS		ACTIVITY		UNITS		PCIL	
GROSS ALPHA DIS		+		-		+		-	
GROSS ALPHA SUS		+		-		+		-	
GROSS ALPHA (URINE)		+		-		+		-	
GROSS ALPHA (SOIL)		+		-		+		-	
GROSS ALPHA (VEG)		+		-		+		-	
GROSS ALPHA (AIR FILTER)		+		-		+		-	
GROSS BETA DIS		+		-		+		-	
GROSS BETA SUS		+		-		+		-	
GROSS BETA (URINE)		+		-		+		-	
GROSS BETA (SOIL)		+		-		+		-	
GROSS BETA (VEG)		+		-		+		-	
GROSS BETA (AIR FILTER)		+		-		+		-	
NET BETA (URINE)		+		-		+		-	
NET BETA (SOIL)		+		-		+		-	
NET BETA (VEG)		+		-		+		-	
NET BETA (AIR FILTER)		+		-		+		-	
SAMPLE WT DIS		+		-		+		-	
SAMPLE WT SUS		+		-		+		-	
SAMPLE VOL (URINE)		+		-		+		-	
SAMPLE VOL (AIR FILTER)		+		-		+		-	
SAMPLE WT		+		-		+		-	
RECOVERY		+		-		+		-	
D	COUNTING DATA	1/3	0043/99						
	COUNTER AND EFF								
	TIME AND TOT CTS								
	TIME AND BKG CTS								
	NET CPM								
	DATE AND TIME START								
	COUNTER AND EFF								
	TIME AND TOT CT								
	TIME AND BKG CTS								
	NET CPM								
	DATE AND TIME START								
	RADON								
	DATE COUNTED								
	TOTAL TIME								
	TOTAL COUNTS								
	GROSS CPM								
	BKG CPM								
	NCPM								

[illegible]

A GN 86 0001 18601073
 SOX APP POTES, Waterford, CO Q253D
 Col: 21-MAY-86 Rec: 03-JUN-86

SUI
 AFB 4ABGP
 Brooks AFB
 MW # 4
 WATER
 TX 78235
 Logged by FJ

B		CHEMISTRY DATA		WT (DIS)		C		LABORATORY IDENTIFICATION	
WT OR VOL ANALYZED		600 ML		WT (SUS)		RHL NO			
CHEMICAL RECOVERY				SEP TIME		BASE CODE			
SPIKE RHL NO.				VOL SPIKE ADDED		DATE REC		BY	
REMARKS		-GAMI		CHEM COMRC		NUCLIDE		BY	
E		RESULTS		ACTIVITY		ERROR		UNITS	
COUNTING DATA		119		0042194					
COUNTER AND EFF		GROSS ALPHA DIS	+		PCII/L	4-735	460		11
TIME AND TOT CTS		GROSS ALPHA SUS	+		PCII/L	K-40	98		11
TIME AND BKG CTS		GROSS ALPHA (URINE)	+		PCII/24H	Ge-51	244		11
NET CPM		GROSS ALPHA (SOIL)	+		PCII/GD	10-60	212		11
DATE AND TIME START		GROSS ALPHA (VEG)	+		PCII/GA	7E-95	211		11
COUNTER AND EFF		GROSS ALPHA (AIR FILTER)	+		PCII/M ³	16-95	28		11
TIME AND TOT CT		GROSS BETA DIS	+		PCII/L	Mo-99	2440		11
TIME AND BKG CTS		GROSS BETA SUS	+		PCII/L	Ru-103	23		11
NET CPM		GROSS BETA (URINE)	+		PCII/24H	Ru-106	265		11
DATE AND TIME START		NET BETA (URINE)	+		PCII/24H	5731	228		11
COUNTER AND EFF		GROSS BETA (SOIL)	+		PCII/GD	13-74	23		11
TIME AND TOT CTS		GROSS BETA (VEG)	+		PCII/GA	13-137	29		11
DATE AND TIME START		GROSS BETA (AIR FILTER)	+		PCII/M ³	2A 740	229		11
RADON		SAMPLE WT DIS	+		MGIL	1A-140	215		11
DATE COUNTED		SAMPLE WT SUS	+		MGIL				
TOTAL TIME		SAMPLE VOL (URINE)	+		ML				
TOTAL COUNTS		CORRECTED SAMPLE ACT	+		M ³				
GROSS CPM		CONTROL ROOM ACTIVITY	+						
BKG CPM		NET SAMPLE ACTIVITY	+						
NCPM		RECOVERY	+						
		COUNT COMP	1	2	JUN 1986			BY	

A GN 86 0004
SIX *APP PAGES, Waterston, Co*
18601076
Q253D
Rec: 03-JUN-86
Col: 21-MAY-86

ARGG.
Brooks AFB

WATER
TX 78235
Logged by

AN: AFP POKS MW #5

[illegible]

Robert F. Smith

12 JUN 1985

COUNT
COMP

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D		COUNTING DATA		E		RESULTS		ACTIVITY		UNITS		NUCLIDE		ACTIVITY		ERROR		BY		UNIT	
COUNTER AND EFF		TIME AND TOT CTS		GROSS ALPHA DIS		GROSS ALPHA SUS		< 4.5		PCIL		PCIL		+		-		DATE REC		BY	
TIME AND BKG CTS		100/17/508		GROSS ALPHA (URINE)		GROSS ALPHA (SOIL)		+		PCII/24H		PCII/24H		+		-		DATE COMP		BY	
NET CPM		78/1014/1002		GROSS ALPHA (VEG)		GROSS ALPHA (AIR FILTER)		+		PCII/24H		PCII/24H		+		-		DATE REC		BY	
DATE AND TIME START		10 JUL 86		GROSS BETA DIS		GROSS BETA SUS		27.6		PCII/24H		PCII/24H		+		-		DATE REC		BY	
COUNTER AND EFF				GROSS BETA (URINE)		GROSS BETA (SOIL)		+		PCII/24H		PCII/24H		+		-		DATE REC		BY	
TIME AND TOT CT				GROSS BETA (AIR FILTER)		GROSS BETA (VEG)		+		PCII/24H		PCII/24H		+		-		DATE REC		BY	
TIME AND BKG CTS				NET BETA (URINE)		NET BETA (SOIL)		+		PCII/24H		PCII/24H		+		-		DATE REC		BY	
NET CPM				GROSS BETA (AIR FILTER)		GROSS BETA (VEG)		+		PCII/24H		PCII/24H		+		-		DATE REC		BY	
DATE AND TIME START				GROSS BETA (AIR FILTER)		GROSS BETA (VEG)		+		PCII/24H		PCII/24H		+		-		DATE REC		BY	
RADON		CELL NO.		GROSS BETA (AIR FILTER)		GROSS BETA (VEG)		+		PCII/24H		PCII/24H		+		-		DATE REC		BY	
DATE COUNTED		TIME STARTED		SAMPLE WT DIS		SAMPLE WT SUS		+		MGIL		MGIL		+		-		DATE REC		BY	
TOTAL TIME		UNCORRECTED SAMPLE ACT		SAMPLE VOL (URINE)		SAMPLE VOL (AIR FILTER)		+		ML		ML		+		-		DATE REC		BY	
TOTAL COUNTS		TIME COR FACTOR		CORRECTED SAMPLE ACT		CONTROL ROOM ACTIVITY		+		M3		M3		+		-		DATE REC		BY	
GROSS CPM		CORRECTED SAMPLE ACT		NET SAMPLE ACTIVITY		RECOVERY		+		%		%		+		-		DATE REC		BY	
BKG CPM		CONTROL ROOM ACTIVITY						+						+		-		DATE REC		BY	
NCPM		NET SAMPLE ACTIVITY						+						+		-		DATE REC		BY	

COUNT COMP 12 JUN 1986

5.4.206
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21-AUG-86

Q253D

SAMPLE ANALYSIS RESULTS

USAF DEHL/RZ

BROOKS AFB TX 78235-5000

USAF OCCUPATIONAL AND ENVIRONMENTAL

HEALTH LABORATORY (AFSC)

BROOKS AFB, TEXAS 78235-5501

IDENTIFICATION

TYPE OF SAMPLE

DATE RECEIVED

DEHL NUMBER

CN 86 0001

WATER

03-JUN-86

18601073

GROSS ALPHA

53.5 +/- 11.7

PICOCURIES PER LITER

GROSS BETA

42.8 +/- 4.0

PICOCURIES PER LITER

BARIUM 140

<29

PICOCURIES PER LITER

COBALT 60

<12

PICOCURIES PER LITER

CHROMIUM 51

<44

PICOCURIES PER LITER

CESIUM 134

<3

PICOCURIES PER LITER

CESIUM 137

<9

PICOCURIES PER LITER

IODINE 131

<28

PICOCURIES PER LITER

POTASSIUM 40

98 +/- 25

PICOCURIES PER LITER

LANTHANUM 140

<15

PICOCURIES PER LITER

MOLYBDENUM 99

<440

PICOCURIES PER LITER

NIOBIUM 95

<6

PICOCURIES PER LITER

RUTHENIUM 103

<3

PICOCURIES PER LITER

RUTHENIUM 106

<65

PICOCURIES PER LITER

URANIUM 235

<60

PICOCURIES PER LITER

ZIRCONIUM 95

<11

PICOCURIES PER LITER

THORIUM 232

0.31 +/- 0.07 PICOCURIES PER LITER

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PAGE # 2

IDENTIFICATION

TYPE OF SAMPLE

DATE RECEIVED

DEHL NUMBER

CN 86 0001

WATER

03-JUN-86

18601073

THORIUM 232

0.18 +/- 0.05 PICOCURIES PER LITER

RESULTS ARE DECAY CORRECTED

ELLEN F. WAFER, MAJOR, USAF, ESO

DATE COMPLETED 15-AUG-86

USAF RADIOANALYTICAL SERVICES BR.

AFSC 6100 000-2001

21-AUG-86

Q253D

SAMPLE ANALYSIS RESULTS

USAF DEHL/RZ
BROOKS AFB TX 78235-5000USAF OCCUPATIONAL AND ENVIRONMENTAL
HEALTH LABORATORY (AFSC)
BROOKS AFB, TEXAS 78235-5501

IDENTIFICATION	TYPE OF SAMPLE	DATE RECEIVED	DEHL NUMBER
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SH 86 0002	WATER	03-JUN-86	18601074
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GROSS ALPHA	<4.5	PICOCURIES PER LITER
GROSS BETA	29.6 +/- 3.3	PICOCURIES PER LITER
BARIUM 140	<66	PICOCURIES PER LITER
COBALT 60	<11	PICOCURIES PER LITER
CHROMIUM 51	<40	PICOCURIES PER LITER
CESIUM 134	<9	PICOCURIES PER LITER
CESIUM 137	<5	PICOCURIES PER LITER
IODINE 131	<24	PICOCURIES PER LITER
POTASSIUM 40	<95	PICOCURIES PER LITER
LANTHANUM 140	<16	PICOCURIES PER LITER
MOLYBDENUM 99	<510	PICOCURIES PER LITER
NIOBIUM 95	<7	PICOCURIES PER LITER
RUTHENIUM 103	<7	PICOCURIES PER LITER
RUTHENIUM 106	<54	PICOCURIES PER LITER
URANIUM 235	<26	PICOCURIES PER LITER
ZIRCONIUM 95	<7	PICOCURIES PER LITER
THORIUM 232	0.21 +/- 0.09	PICOCURIES PER LITER

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PAGE # 2

IDENTIFICATION	TYPE OF SAMPLE	DATE RECEIVED	DEHL NUMBER
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SH 86 0002	WATER	03-JUN-86	18601074
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THORIUM 232	0.16 +/- 0.06	PICOCURIES PER LITER
RESULTS ARE DECAY CORRECTED		

EDWARD F. MAHER, MAJOR, USAF, SSC	DATE COMPLETED 13-AUG-86
CHIEF, RADIOANALYTICAL SERVICES BR.	
AUTOCALL 240-2061	

L-445

 21-AUG-86 Q253D SAMPLE ANALYSIS RESULTS

 USAF DEHL/RZ USAF OCCUPATIONAL AND ENVIRONMENTAL
 BROOKS AFB TX 78235-5000 HEALTH LABORATORY (AFSC)
 BROOKS AFB, TEXAS 78235-5501
 =====

IDENTIFICATION	TYPE OF SAMPLE	DATE RECEIVED	DEHL NUMBER
GN 86 0003	WATER	03-JUN-86	18601075
GROSS ALPHA	<1.8	PICOCURIES PER LITER	
GROSS BETA	41.9 +/- 3.6	PICOCURIES PER LITER	
BARIUM 140	<12	PICOCURIES PER LITER	
COBALT 60	<11	PICOCURIES PER LITER	
CHROMIUM 51	<96	PICOCURIES PER LITER	
CESIUM 134	<9	PICOCURIES PER LITER	
CESIUM 137	<7	PICOCURIES PER LITER	
IODINE 131	<30	PICOCURIES PER LITER	
POTASSIUM 40	<83	PICOCURIES PER LITER	
LANTHANUM 140	20 +/- 17	PICOCURIES PER LITER	
MOLYBDENUM 99	<450	PICOCURIES PER LITER	
NIOSIUM 95	<8	PICOCURIES PER LITER	
RUTHENIUM 103	<9	PICOCURIES PER LITER	
RUTHENIUM 106	<47	PICOCURIES PER LITER	
URANIUM 235	<46	PICOCURIES PER LITER	
ZIRCONIUM 95	<15	PICOCURIES PER LITER	
THORIUM 232	0.12 +/- 0.1	PICOCURIES PER LITER	

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 PAGE 4 2
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IDENTIFICATION	TYPE OF SAMPLE	DATE RECEIVED	DEHL NUMBER
GN 86 0003	WATER	03-JUN-86	18601075
THORIUM 232	0.13 +/- 0.09	PICOCURIES PER LITER	

 RESULTS ARE DECAY CORRECTED

 EDWARD J. NAHER, MAJOR, USAF, 390 DATE COMPLETED 15-AUG-86
 CHIEF, RADIATION ANALYTICAL SERVICES BR.
 AUTOGRAPH 240-2011

 L-444

21-AUG-86		Q253D	SAMPLE ANALYSIS RESULTS	
USAF CEHL/RZ			USAF OCCUPATIONAL AND ENVIRONMENTAL	
BROOKS AFB TX 78235-5000			HEALTH LABORATORY (AFSC)	
			BROOKS AFB, TEXAS 78235-5501	
=====				
IDENTIFICATION		TYPE OF SAMPLE	DATE RECEIVED	CEHL NUMBER

GN 86 0004		WATER	03-JUN-86	18601076
=====				
GROSS ALPHA		10.6 +/- 6.4	PICOCURIES PER LITER	
GROSS BETA		31.4 +/- 3.5	PICOCURIES PER LITER	
BARIUM 140		<75	PICOCURIES PER LITER	
COBALT 60		<11	PICOCURIES PER LITER	
CHROMIUM 51		<39	PICOCURIES PER LITER	
CESIUM 134		<8	PICOCURIES PER LITER	
CESIUM 137		<6	PICOCURIES PER LITER	
IODINE 131		<27	PICOCURIES PER LITER	
POTASSIUM 40		<99	PICOCURIES PER LITER	
LANTHANUM 140		36 +/- 18	PICOCURIES PER LITER	
MOLYBDENUM 99		<520	PICOCURIES PER LITER	
NIOBIUM 95		<9	PICOCURIES PER LITER	
RUTHENIUM 103		<8	PICOCURIES PER LITER	
RUTHENIUM 106		<12	PICOCURIES PER LITER	
URANIUM 235		<33	PICOCURIES PER LITER	
ZIRCONIUM 95		<16	PICOCURIES PER LITER	
THORIUM 228		0.38 +/- 0.08	PICOCURIES PER LITER	
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PAGE # 2

IDENTIFICATION	TYPE OF SAMPLE	DATE RECEIVED	CEHL NUMBER
GN 86 0004	WATER	03-JUN-86	18601076
=====			
THORIUM 232	0.24 +/- 0.06	PICOCURIES PER LITER	
RESULTS ARE DECAY CORRECTED			

EDWARD F. MAHER, MAJOR, USAF, BSC DATE COMPLETED 15-AUG-86
CHIEF, RADIOANALYTICAL SERVICES SR.
AUTOVON 240-2061

21-AUG-86 Q253D SAMPLE ANALYSIS RESULTS

USAF DEHL/RZ USAF OCCUPATIONAL AND ENVIRONMENTAL
BROOKS AFB TX 78235-5000 HEALTH LABORATORY (AFSC)
BROOKS AFB, TEXAS 78235-5501

IDENTIFICATION	TYPE OF SAMPLE	DATE RECEIVED	DEHL NUMBER
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GN 86 0005	WATER	03-JUN-86	18601077
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GROSS ALPHA	<1.9	PICOCURIES PER LITER
GROSS BETA	17.0 +/- 2.5	PICOCURIES PER LITER
BARIUM 140	<47	PICOCURIES PER LITER
COBALT 60	<12	PICOCURIES PER LITER
CHROMIUM 51	<62	PICOCURIES PER LITER
CESIUM 134	<7	PICOCURIES PER LITER
CESIUM 137	<4	PICOCURIES PER LITER
IODINE 131	<28	PICOCURIES PER LITER
POTASSIUM 40	<92	PICOCURIES PER LITER
LANTHANUM 140	<16	PICOCURIES PER LITER
MOLYBDENUM 99	<560	PICOCURIES PER LITER
NIوبيUM 95	<12	PICOCURIES PER LITER
RUTHENIUM 103	<4	PICOCURIES PER LITER
RUTHENIUM 106	<55	PICOCURIES PER LITER
URANIUM 235	<43	PICOCURIES PER LITER
ZIRCONIUM 95	<16	PICOCURIES PER LITER
THORIUM 228	0.07 +/- 0.03	PICOCURIES PER LITER

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PAGE # 2

IDENTIFICATION	TYPE OF SAMPLE	DATE RECEIVED	DEHL NUMBER
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GN 86 0005	WATER	03-JUN-86	18601077
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THORIUM 232	0.06 +/- 0.02	PICOCURIES PER LITER
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RESULTS ARE DECAY CORRECTED

EDWARD F. MAHER, MAJOR, USAF, SSC DATE COMPLETED 15-AUG-86
CHIEF, RADIOANALYTICAL SERVICES BR.
BROOKS AFB, TEXAS

21-AUG-86

Q253D

SAMPLE ANALYSIS RESULTS

USAF OEHL/RZ

USAF OCCUPATIONAL AND ENVIRONMENTAL

BROOKS AFB TX 78235-5000

HEALTH LABORATORY (AFSC)

BROOKS AFB, TEXAS 78235-5501

IDENTIFICATION

TYPE OF SAMPLE

DATE RECEIVED

OEHL NUMBER

GN 86 0006

WATER

03-JUN-86

18601078

GROSS ALPHA

<1.9

PICOCURIES PER LITER

GROSS BETA

10.4 +/- 2.2

PICOCURIES PER LITER

BARIUM 140

<38

PICOCURIES PER LITER

COBALT 60

<11

PICOCURIES PER LITER

CHROMIUM 51

<89

PICOCURIES PER LITER

CESIUM 134

<8

PICOCURIES PER LITER

CESIUM 137

<5

PICOCURIES PER LITER

IODINE 131

<20

PICOCURIES PER LITER

POTASSIUM 40

<92

PICOCURIES PER LITER

LANTHANUM 140

<17

PICOCURIES PER LITER

MOLYBDENUM 99

<500

PICOCURIES PER LITER

NIOBIUM 95

<10

PICOCURIES PER LITER

RUTHENIUM 103

<8

PICOCURIES PER LITER

RUTHENIUM 106

<46

PICOCURIES PER LITER

URANIUM 235

<27

PICOCURIES PER LITER

ZIRCONIUM 95

<21

PICOCURIES PER LITER

THORIUM 232

0.08 +/- 0.04

PICOCURIES PER LITER

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PAGE # 2

IDENTIFICATION

TYPE OF SAMPLE

DATE RECEIVED

OEHL NUMBER

GN 86 0006

WATER

03-JUN-86

18601078

THORIUM 232

0.05 +/- 0.03

PICOCURIES PER LITER

RESULTS ARE DECAY CORRECTED

EDWARD F. MAHER, MAJOR, USAF, BSC
CHIEF, RADIOANALYTICAL SERVICES BR.
AUTOVON 240-2061

DATE COMPLETED 15-AUG-86

APPENDIX M
RESPONSES TO REGULATORY COMMENTS

AFP PJKS DRAFT PHASE II REPORT COMMENTS
FROM REGULATORY AGENCIES

U.S. Environmental Protection Agency
(Ref. 8HWM-SR; letter dated 19 August 1986)

Comments

1. Detection limits.

The detection limits for some critical chemical analyses were very high. We believe that this is a serious weakness in this investigation and severely limits the usefulness of the results. The detection limit for hydrazine in water, for instance, was 1 part per million (ppm) and for TCE in soils, 2 ppm. These high detection limits probably explain why there were no positive results for these two contaminants in those media.

Response

1. Detection limits.

Detection limits are determined by the specific method of analysis and represent limits that can be reached by a laboratory. We agree that the limit for hydrazine (1 ppm) and TCE (2 ppm) may be a little high. However, matrix effects normally raise the limits of detection.

An EPA method for analysis of hydrazine does not exist. Therefore, a NIOSH method was modified for this analysis. Theoretically, a detection limit of 0.1 mg/L (ppm) can be achieved. Ultimately, the analytical laboratory must determine the detection limit. If you have an approved method for analyzing hydrazine which has a lower detection limit, we would greatly appreciate a reference to it. However, even with a lower detection limit, we would doubt hydrazine could be detected due to the lability of the compound.

EPA Method (8010) specifies a sensitivity of 1 mg/kg (ppm) to be achieved. By back calculating from the detection limit for TCE in water samples, we can get a theoretical detection limit of 0.06 mg/kg for TCE in soil samples. This represents a detection of 0.0006 ug of TCE by the GC, using the protocols specified by EPA Method 3050/8010. We do not know if a detection limit below 1 mg/kg can be achieved. In the next stage of investigation we can specify a detection limit of at least 0.1 mg/kg. However, the laboratory will have to determine the achievable detection limits based on the soil matrix of the samples.

APP PJKS DRAFT PHASE II REPORT COMMENTS
FROM REGULATORY AGENCIES (Continued)

U.S. Environmental Protection Agency
(Ref. 8HWM-SR; letter dated 19 August 1986) (Continued)

Comments

2. Analytical Techniques.

Although the dual column gas chromatograph (GC) can provide good analytical results, EPA prefers techniques that use both the gas chromatograph and mass spectrometer (GC/MS). We believe that the GC/MS provides better identification of chemical constituents and GC/MS methods are used by EPA contract laboratories for hazardous materials analysis.

Response

2. Analytical Techniques.

We agree that GC/MS is more desirable for positive identification of compounds. However, the detection limits for GC/MS analyses are about 10 times higher than for GC with second column confirmation. For example, the method for EPA Contract Laboratory Program (CLP) specifies detection limits for 5 to 10 ug/L for many volatile organic compounds. We are concerned with the proposed drinking water standards. The proposed Maximum Contaminant Level (MCL) for TCE is 5 ug/L. The CLP method has a detection limit of 5 ug/L which is at the MCL. Worst, the proposed MCL for vinyl chloride is 1 ug/L and the detection limit with GC/MS is 5 ug/L.

If GC/MS method is agreeable to all parties, we will use this type of method. If not, we would still like to use GC/MS to analyze all future water samples from past sites with high amounts of organic compound contamination (at least above detection limit of GC/MS) and where previous water samples were analyzed by GC with second column confirmation. This would allow us to eliminate any doubts of the identity of the compounds. In addition, we would like to use GC/MS for all soil samples since there are no standards for soil samples other than EP Toxicity.

AFP PJKS DRAFT PHASE II REPORT COMMENTS
FROM REGULATORY AGENCIES (Continued)

U.S. Environmental Protection Agency

(Ref. 8HWM-SR; letter dated 19 August 1986) (Continued)

<u>Comments</u>	<u>Response</u>
<p>3. Interpretation of Soil Data.</p> <p>The use of the EPA publication, "Hazardous Waste Land treatment," is inappropriate for evaluating the soil sample results at PJKS. That publication includes recommendations for managing hazardous waste treatment facilities and the guidelines for contaminant accumulation in soils are not meant to evaluate ambient conditions.</p>	<p>3. Interpretation of Soil Data.</p> <p>We are not aware of any standards for soils except for EP Toxicity. If available, please provide appropriate publications or references to publications that we can use for evaluating our results.</p> <p>We are planning to analyze and use background samples for comparison in the next stage of investigation.</p>
<p>4. Conclusions and Recommendations.</p> <p>We generally agree with the conclusions and recommendations listed in Sections 5 and 6 of the Report. The ground water contamination that has been identified should be examined more thoroughly and the sources should be located. The resampling discussed on page 6-3 is a good idea as long as the detection limits are lowered to provide more useful data. We would like to work with the Air Force in developing the work plan for the tasks suggested in Section 6.</p>	<p>4. Conclusions and Recommendations.</p> <p>We would like the EPA and Colorado Department of Health to review the draft IRP II-2 Statement of Work. Comments from these agencies will be incorporated into the final Statement of Work.</p>

APP PJKS DRAFT PHASE II REPORT COMMENTS
FROM REGULATORY AGENCIES (Continued)

Colorado Department of Health

(Comments by G. Starkebaum, 22 August 1986,
Telephone Memo)

<u>Comments</u>	<u>Response</u>
1. Concrete Pond (T8-A).	1. Concrete Pond (T8-A).
<p>Colorado Department of Health still considers this pond as a RCRA impoundment subject to RCRA closure. Closure process has to be worked out by the State through the review of Martin-Marietta's (M-M) Part B permit application. The State does not consider this issue a serious one.</p>	None.
2. Samples Proposed for soil and water EPL Rinse Water Tanks (Located right below T-6033 tanks).	2. Samples Proposed for soil and water EPL Rinse Water Tanks (Located right below T6033 tanks).
<p>The State took a sample on 15 March 1985 in this area which indicated a prominent presence of heavy metals as follows:</p>	None.
<p>a. Sample was taken from a pipe discharging on the ground. This pipe has since been plugged by M-M. This area was made part of the Consent Order which required M-M to include this area in the Closure Plan. This issue needs to be coordinated by M-M between its RCRA and IRP activities:</p>	
2a(1) - Arsenic found at 1.2 ppm (total digestion of 1-gram sample dissolved in nitric acid)	
2a(2) - barium found at 21 ppm	
2a(3) - Total chromium found at 5.1 ppm	
2a(4) - lead found at 13 ppm	
2a(5) - mercury found in 0.2 ppm.	
3. Draft Report is considered a good one by the State.	3. None.